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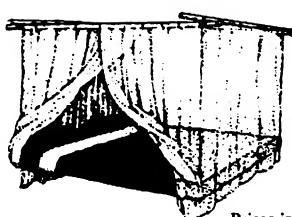
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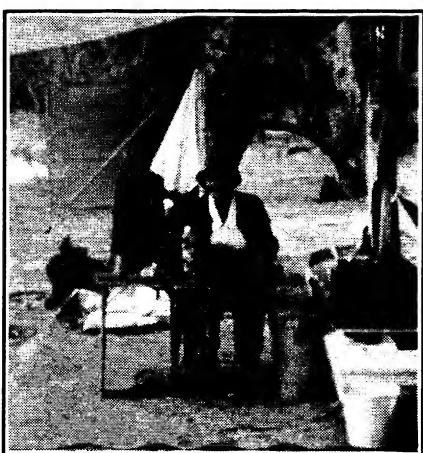
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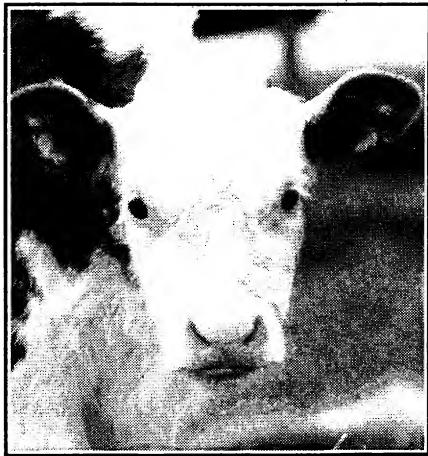
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COVER PHOTOS

Front Cover: Tom and Marguerite met by accident, found their dream property in a moment of inspiration, started a Kiwi farm, then converted it to biodynamics. Now they're showing others how it's done. Read their story on page 6. Photo by Peter Secchi.

Back Cover: Julie Firth lives in an arid area of WA where she studies plants for dryland permaculture. Read her advice on choosing plants for a tough climate on page 25.

* * *

Edited by Megg Miller and Mary Horsfall.

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The first weeks of the new year are always chaotic here because of the immediacy of our deadline and it's not till the end of January that we can sit down and think about plans for the months ahead. It's the time off over the festive season and consequent reluctance to return to the 9 to 5 treadmill that creates the problem. It goes without saying that it takes considerable effort – and self discipline – to get this magazine finished and off to the printers, a fact I'm sure I must comment on each year!

With time at a premium there is little opportunity to talk about how we spent Christmas and our days off, and, even worse, we must rush away from birthday morning teas. Both Christine and Kim celebrate January birthdays and these are sandwiched in between our deadlines. I can see we will have to set some time aside after our subscribers' copies have gone out, for a leisurely lunch and an exchange of family activities. We pride ourselves on producing a magazine that is people orientated – it would be poor if we could not set time aside to ensure we also enjoy some networking.

Just before Christmas I was the recipient of a delicious surprise: an iced Chris-sie cake made to Roberino's special recipe as published in the December issue. You must remember it, the directions recommend mixing the ingredients in a plastic bucket, adorned in your shower cap to prevent contamination from straying hairs. Lucy, a local friend who enjoys food growing and preparation, was intrigued by the recipe. She must have set about making it as soon as she finished reading GR 118, and thankfully, she reduced the quantity. I would have been eating cake for a year otherwise. I'm sure Roberino will be chuffed to know this recipe was a great success. I brought a large piece over to the office and we have all nibbled away this last week to maintain energy levels.

Our energy intake must have been down one particular day as we totally overlooked the inclusion of a chart that accompanied the yeast article on page 51. Fortunately we discovered this omission in time to include it although it had to be squeezed in the only available space, on page 18. Our apologies to author John Walters for the mix-up and a gentle reminder to beer and wine mak-

ing enthusiasts to access the table when reading 'The Right Yeast For The Job'.

Some interesting comments have been received concerning the way readers respond when answering Contact adverts. A letter in Feedback last issue outlined problems encountered when using this service and put forward the need for practising common courtesy. This letter opened up a tin of worms, according to its author, with a number of other dissatisfied users expressing similar criticisms. Could we paraphrase the words of Jacko's letter last issue: If you are in receipt of a letter and photo and no longer wish to continue the interaction, please return the photo with a few words of explanation. Sharing personal details as expected when using the Contact service leaves people feeling very vulnerable, and if the exchange concludes without some form of notification unnecessary hurt results. We are often contacted for advice on such matters, or in case correspondence has gone astray at our end. I hope more responsibility will be shown in the future. There is another way of looking at this, a person so clearly lacking respect for others' feelings would make a poor partner!

We have a request to make of writers and intending writers. Many of the articles we receive are accompanied by photographs, which is terrific as it saves us time in getting back and requesting them. The problem for us is that many of the photos we receive have ghastly black smudges on them and, whilst scanners can help eliminate such defects, we would be happier if we could prevent them occurring in the first place. What causes them? They result from the writing on the back of the photos, usually the sender's name, address and caption, which is clearly not dry when the photos are bundled up together. The texta ink probably needs a few hours to dry thoroughly regardless of whether it appears dry when all the photos have been labelled. We're sure most writers are unaware the smudging has occurred, but we encounter it time and time again.

Despite publicity in mainstream newspapers and despite our regular warnings, chain letters still proliferate. Get rich quick schemes predominate. It is not surprising people write in and complain about mail of this nature following



their letter or advert in the magazine, it could easily be construed an invasion of privacy. We cannot prevent people using our publication as an address resource, but we can continue to suggest you compost such material and enjoy the satisfaction of seeing it improve the garden. Of course we could all benefit from extra dollars but the get rich quick pyramid-type chain letter cannot be proven effective and is in fact illegal. May we urge those short of cash to resist the temptation to become involved. The Office of Fair Trading says very confidently you will lose your investment. Readers irritated by such mail are in a position to contact the above named office in their capital city regarding making a complaint.

It's just as well not all the mail circulating falls into the junk category. Apropos to my comments in an earlier issue about the odd places GR has been discovered, Douglas Hill has written in to say that on a recent visit to Glen Gordon tin mine he had reason to visit the outhouse, and lo, what did he find on the floor but a copy of GR from August 1988. You can anticipate Doug's next comment, 'I became engrossed and could not put it down!'. It could be we will soon be challenging *Readers Digest* for 'little room' reading. Finally, a delightful note from someone who has been with us since 1973 and who continues to enjoy and make a success of their farming pursuits. 'As an avid reader since issue No 1, I would like to take this opportunity to congratulate you all on your great magazine and commitment to self-sufficiency and all that covers! Over the years I've read so much useful information and it seemed if I had a problem or new job to tackle without the information, my GR would arrive with an article covering just that subject – thanks.' And we thank you Lynn Cooper.

KIWI DOWNUNDER FARM AND TEAHOUSE

by David Miller, Kinglake, Vic.

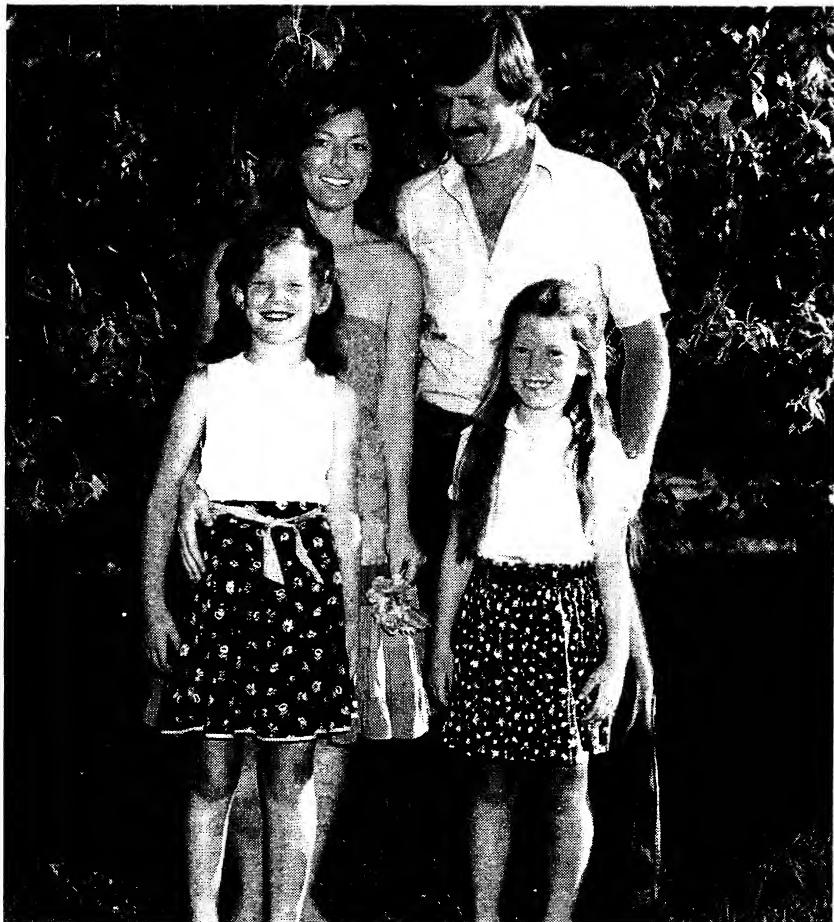
Do accidents really happen? Tom and Marguerite Hackett met and found their dream property by accident, but it seems to the many visitors they welcome to their lovely farm that it was all part of some larger plan.

Tom and Marguerite Hackett met in Sydney on a blind date in winter, 1980, and have never been apart since. On their first evening out together, Tom shared his dream of moving out of the city and living in northern NSW. Marguerite didn't know what to make of this man who owned a liquor outlet. Her first marriage had failed because of alcohol, and she didn't want to subject herself and her two children to that again. She was just looking for a friend. Tom, however, was fascinated by this woman who had a completely independent point of view on life, and who refused to touch alcohol.

As their natural compatibility became more evident, Marguerite wondered how Tom would cope living with herself and two children. He had started talking about a discovery tour to find the right property, so Marguerite came up with a test. If he could live in a Bedford van for six months on the road with the three of them, she would feel confident of a successful life together. With this in her mind and adventure in his, they set off on their tour of discovery.

Tom's parents had already moved to Coffs Harbour, so the new family used their garage as a base. Tom became a dedicated dirt road explorer, always looking for little hideaways, while Marguerite became carsick with the corners and the choking dust. One day, on one of their dust-eating explorations, they came down the back road from Dorrigo and found a beautiful valley with a lovely view to the mountains. They could not forget how beautiful and peaceful it was.

But they were soon on the road again, taking the long trip up to Fraser Island and Bundaberg, although nothing seemed to catch their eye. They kept thinking of the beauty of Coffs Harbour, the friendly people, the pretty little schools and the peaceful valleys. When they returned, they decided to check the local agents for farms, and on their first enquiry were told of a 25 acre



Tom and Marguerite Hackett with daughters Jacqui and Jeannie on their just purchased farm in 1982.

property on the Gleniffer Road, right where they had stopped and admired the view. They agreed to buy it immediately and made plans to visit and inspect as soon as possible.

The farm had a house and shed with plenty of fruit trees planted around it. There were 300 macadamias planted and five acres of bush.

After moving in, they wondered how to develop the property and were told by the Department of Agriculture that kiwi fruit was the best option. So in between their off-farm work, they planted five acres of the vines and settled in to manage them to their first crop.

Slowly they realised how hard it was to make a living off a small property. Production was affected by inclement weather, they had to experiment with sales in different markets which had different agents and involved different retailers, and even if they had all that right, imports would flood in bringing the price down. What shocked them most, however, was the requirement that for sale interstate, the fruit had to be dipped in chemicals. This process was subject to inspection and the amount of protective clothing needed frightened them. How strong and poisonous were the chemicals if you had to be complete-



Above: The magnificent view from the tearoom looking through the lush organic orchard (1996).
 Left: The same view in 1982 when kiwi fruit and macadamias had just been planted.

ly covered to use them?

Through these experiences they learned the vagaries of production and marketing, all of which forced them back on their own resources. They needed more markets, they needed to sell a unique product, and they needed a longer selling season.

First they built their own packing shed and coolroom. This extended the selling season by some months, so if there was a heavy crop, they didn't have to sell it at a low price. Then they decided to do something about their biggest worry, the chemicals. They determined never to use them again. This had many benefits. They knew their health was more secure, they developed an additional market – one for chemical-free fruit – their production costs decreased

and they developed pride in the quality and purity of their product.

When they decided to investigate organic production, they visited as many kiwi fruit farms as possible to learn organic methods, but found none. So they just stopped using the chemicals and started solving the problems as they arose. They built up the soil with compost and tried to encourage a sustainable system with habitats for beneficial insects. They then became interested in biodynamics and started the North Coast Biodynamic Group which organised meetings, farm tours and field days. All the time they were methodically reading everything they could find on organic methods.

They found biodynamics was in tune with their feelings about farming. Some

thought it remarkable that you would organise many farming operations around phases of the moon but, as Marguerite is quick to point out, 'Fishermen have always followed the tides which are governed by the moon. It is entirely normal to them, and they are farming the sea'.

Finding natural answers to farming problems became entirely normal in the Hackett household. They had to use pyrethrum in the changeover period, but now only use pheromone traps, placed in the bush, to protect the many citrus, mangos, pecans, custard apples, avocados and other fruit varieties on the property. These traps lure the insects away from the fruit. They also planted natives as windbreaks and to encourage birds, and tried to landscape the whole property. They found that biodynamic preparations improved the fertility of the soil on the farm and that there is always a natural way to solve a problem.

The benefit is that you are producing a uniquely pure product which can sell on the domestic or export markets at a premium. The Hackets now have their own label and an information sheet to go with the product.

They are also producing two varie-

ties of nuts from their macadamia plantation. When prices fell they bought a dehusker and packed the nuts for sale themselves instead of selling in bulk. Their small sheep flock grazes in the plantation, keeping the grass down so the fallen nuts can be seen at harvest. The sheep are rotated through the paddocks around the farm and keep the weeds out of the kiwi fruit in winter. They are given herbal remedies as required and don't seem to have any health problems.

After a while, the Hacketts realised they had a stream of visitors to their little fruit farm. Friends visited who later told their friends. Neighbours wanted to know how their farming methods were working, and doctors sent allergy patients out to buy organic products. Contemporaneously, the Hacketts were discussing the affordability of replacing the old tractor. How could they raise the funds?

One morning, while Marguerite was milking the goats, she was inspired by the beautiful view as she gazed out through the doors of the old shed. After many months of family discussion, they decided to rebuild the shed into a teahouse which would open in the afternoons and at weekends. The success of the project became obvious when buses began to arrive soon after the opening.

Lunches were then offered as well. But tragedy struck on the 27th of August, 1992. A fire, started by an electrical fault, destroyed most of the building.

After all the work of renovating the building, publicising the teahouse, wondering if they really did want a constant stream of visitors, and then deciding to take on the challenge, all their efforts were lost in one single, horrible night. Could they face a rebuild? They didn't know. Suddenly they were literally inundated with letters, phone calls and offers of help. They couldn't refuse and were soon building again. Now the teahouse is open as usual serving country corn chowder, fresh bread rolls, upside down spinach pie, vegie parcels, vegan cake, chocolate cake, ikky sticky pudding and angel food cake with blueberry sauce.

The Hacketts believe farming is for the long term and that we must leave our land better than we found it. To achieve this we all need to know more, be adventurous, trust natural methods and have faith in our own ability to solve problems along the way. People will always help you; change takes place by example and neighbours are always learning from each other's methods. Through the organic movement and the development of their own intuition,

Marguerite and Tom Hackett have developed a vibrant farm which imparts health to those who eat its products, to those living on it and to those who visit. As she looked at the valley and the enveloping trees planted around the property, one recent visitor remarked: 'You have created a womb; nurturing people, feeding people and taking care of them.'

Kiwi Downunder Farm and Teahouse is open from midday to 5.00pm, Wednesday to Sunday. It is 15km south of Coffs Harbour, just off the Pacific Highway – just follow the signs. You can phone on: 066-534 449.

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LIVING THE CAR-FREE LIFE

by Linda Gordon, Yarraville, Vic.

Linda Gordon wrote to tell us how much she enjoys reading *Grass Roots*. She reads many magazines, from *The New Yorker* to *The Independent Monthly*, and maintains there is more useful information in *Grass Roots* than in any number of others. With such praise showered upon us how could we resist publishing this article describing her family's car-free lifestyle.

There are so many ways to be a good green citizen but for urbanites there is no more effective way than giving up the car. We are a family of four living in Melbourne's inner western suburbs. November 1996 marked the second anniversary of our car-free life and, so far, so good.

Recently we tested our home's greenhouse emission contribution using a computer quiz at Scienceworks museum. Ours was within the lowest possible rating, not because we are a model of self-sufficiency and environmentally sound practice, but because we do not run a car.

But what are the effects on family life when you opt for a more stationary existence and how do you survive in a car-dominant town like Melbourne?

After 20 years of running old unreliable cars, with all the anxiety of sudden breakdowns in inconvenient places, and costs of running repairs, we breathed a sigh of relief when the wrecker towed our four-wheeled burden away.

Train fares every working day and the cost of an occasional taxi ride come nowhere near matching the annual cost of running and maintaining the car. Public transport is not always reliable but most of the time it is. On the train or tram there is time to read, to observe, to think. If you are a working parent, travel time can be an island of peace in the rush of a work day.

Children, too, become involved with life when they travel on public systems. There are lessons to learn about cohesive, co-operative behaviours, the

changing landscape to absorb, and of course, the subtle art of waiting to practise. Patience is one of the virtues after all.

Another positive is curbing the suburban habit of wandering many kilometres in search of things. Without a car you shop locally and support local organisations and services such as schools, libraries, sports clubs and community centres. We all hear horror stories of parents trapped in their cars every Saturday, transporting children from one distant sport or activity to another and then shopping at a mega-mall in a suburb half an hour away because it provides three hectares of parking.

The humble bicycle comes into its own when you give up the vehicle. We are not the serious bicycle types with the

lycra and the goggles, but we do have a couple of old bikes that get us around. Strap a basket or tie a box to the handlebars and you can carry seedlings home from the nursery or get a bit of shopping. And the less fancy the bike, the less likely it is to get pinched from outside the library.

The downside is we can't get out of town without a fair bit of planning, and early morning swims on hot summer days are less frequent. However, we do get around Victoria on trains and buses and we have hired a car for long weekends. As to the swims, well, we get organised the day before and make a day of it. Buses go everywhere in Melbourne, just ask a backpacker from Sweden or Canada.

Groceries are delivered from the supermarket and we buy organic fruit and vegetables over the phone from the Green Line, who also deliver throughout the metropolitan area. (See article on Green Shopping in GR 117.) Mail order catalogues are available for everything from heirloom seeds for the vegetable patch to cotton trousers and hard to find books, and are a great pleasure to browse through. All these services enhance the stationary life.

Our street is narrow and only some houses have off-street parking. There

are residents who have no off-street parking but are the proud owners of two cars. The street is choked with traffic. Once upon a time this street was safe for children. There was a network of back lanes that took the kids safely to and from school and shops. The small front gardens were meeting places and the pavements were for hopscotch and tiggy. You wouldn't let your children play within cooee of the road now.

City-based families as a group quite possibly live longer when they give up the auto, or at least lengthen the odds against death or injury from traffic. We are also celebrating the demise at our place of another twentieth century invention. It's about two years since we owned a television, but that's another story.



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Consumers should check that contractors are registered and have the required insurance.

Owner builders are not required to register. However, if an owner-built house is sold less than 6½ years from completion of the building an inspection must be carried out by a prescribed building practitioner, and insurance be obtained for the period remaining between the sale date and the required insurance period of 6½ years.

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Office of Fair Trading and Business Affairs
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YOU DON'T HAVE TO BE AN EGGSPERT!

by Judith James, Pearce, ACT.

Until a few years ago I had never heard about pysanky. To be honest, I couldn't even pronounce it. Eggs were strictly breakfast menu items, scrambled or poached. The thought of painstakingly and laboriously decorating an egg was the furthest thing from my mind. I still had the break and eat mentality. But all that was set to change the day I met Sharon.

Sharon had just arrived in Australia. She arrived with a strong sense of family tradition. Of Ukrainian descent, she also arrived with everything necessary to make pysanky, Ukrainian Easter eggs: those incredibly beautiful luminously alive and intricately patterned eggs that one admires in books, or in jigsaw puzzles, or for sale (if you're lucky enough to stumble upon a shop that sells them).

For the Ukrainians, they are symbols of love and life and friendship, each a work of art in its own right. Sharon's, I thought were particularly beautiful and my expression of interest was met with reciprocal delight. That day, I became her first Australian convert and a life-long devotee to the art of making pysanky. I can almost guarantee that gently wiping the melted wax off a finished egg is one of life's most satisfying and rewarding experiences, for under the layers of wax are all the wonderful patterns and rich colours you've worked so hard to create.

Pysanky are not as hard to make as they look. You can make them as simple or as complicated as you like. Patterns can be lightly traced on the egg with a lead pencil and wiped clean with vinegar if you're not satisfied. This way you can practise all you like before you even commit egg to dye. Drawing straight lines around an egg or even dividing an egg into quarters can be quite a challenge. My lines took months to meet, but it does get easier as time goes by.

PROCEDURE

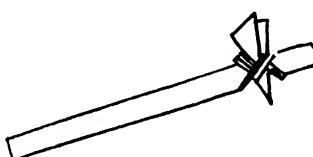
Tempted to try? Well, why not give it a go, but before you rush off to the chook pen, there are a few things you'll need.

Materials

- large, white, thick-shelled, smooth goose or hen eggs
- a lead pencil



- a small bottle of vinegar and a soft cloth
- a lump of beeswax
- a candle and a box of matches
- prepackaged Easter egg dyes for the brightest colours (try health food stores, or continental delicatessens)
- wide necked jars for dyes – some dyes are edible dyes but others are not, so, please be careful and store out of reach.
- clear varnish or nail polish
- a kistka needed to apply the beeswax – These can be bought or ordered from some craft stores. They can also be handmade. If all else fails, you could try contacting a Ukrainian Orthodox Church and I've included a mail order shop address in the USA.



The waxing tool or kistka consists of a metal cone wired to a pencil-thick wooden handle. It holds a little lump of wax which is melted in a candle flame.

Method

- Select the perfect egg. Hard boil it if you wish but traditionally the eggs are decorated raw. They will keep indefinitely if they are not cracked, hard as it is to believe. Only eggs in a hot humid climate need to be blown on completion.
- Wipe egg clean with a soft cloth dampened with vinegar.
- Work a design on paper first and start with something basic and simple. Transfer the pattern onto the egg, lightly, with a lead pencil. It often helps to divide the egg into sections first.
- Prepare the dyes according to instructions. Cool, pour into a jar, wide-necked enough for an egg to be lowered in on a spoon. Label carefully and store out of reach of young children.
- Light the candle. Heat the head of the kistka in the flame. Scoop a little beeswax into the metal cone. If this gets too hot, the wax will form blobs. At the right temperature it will flow smoothly onto the design pencilled onto the egg. Everything you trace over now will remain the white colour of the eggshell.
- Lower the egg gently into the dye of your choice on a spoon. Leave at least

The symbols used in making pysanky are as old as the ancient art itself.



ribbon or belt: 'the endless line of eternity'

the cross: 4 corners of the world and the resurrection

leaf and flower: suggest life and growth

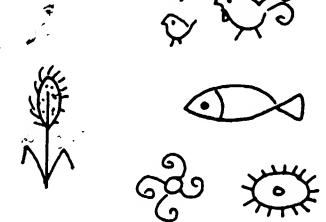
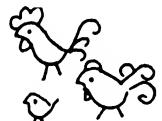
pine needles: for youth and health

fish: ancient symbol for Christ

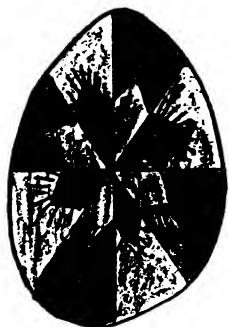
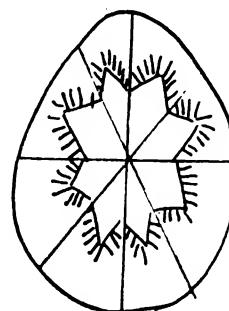
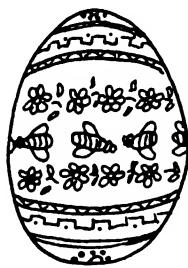
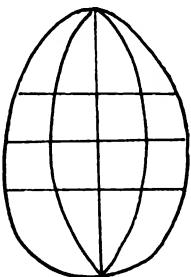
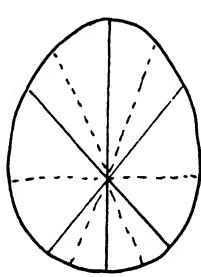
deer and horses: wealth and prosperity

birds: fertility and fulfilment of wishes

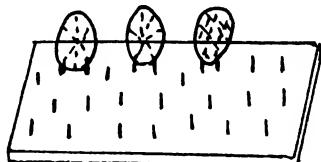
wheat sun spider (right)



Trace design onto white egg shell. Put into red dye. Wax over all design you wish to remain red. Place into black dye. Remove wax.



Dividing the egg first helps in keeping patterns symmetric.



A piece of old timber with nails driven through from the back makes an ideal drying board.

An 8-pointed geometric star design is one of the oldest traditional Ukrainian designs. It is an easy one to start with and only needs two dyes.

10 minutes. The longer it is left the deeper the colour will be. If you only planned on a two coloured egg (the white of the shell and one other), remove the egg from the dye and leave to dry. A simple holder can be made by driving nails through a wooden board.

- Remove the wax by holding the egg to the side of a candle flame. As the wax starts to melt, wipe it off with a soft cloth to reveal your pattern.

- If you wish to add more colours always work from light to dark combinations (eg white, red, black or yellow, dark pink and purple) and you can continue to build upon your pattern by adding more layers of wax and dying the egg up to five times. Remove these successive wax layers only after the final dye bath.
- Leave the egg to dry thoroughly on the drying board.

• Rub with a drop of salad oil to add lustre and protect the colours or, using your fingers, coat with clear varnish.

If your egg is unblown, it is a good idea to keep it in a cool place. Turn occasionally and gradually the egg white and yolk will dry into a hard ball that rattles around inside the egg. I have only had one egg explode, years after it was finished. How or why I'll never know.

If you really get interested in the art of making pysanky the Ukrainian Gift Shop, 2422 Central Ave, NE Minneapolis, Minnesota 55418 USA, mail orders kistkas and dyes and starter kits containing both all over the world. They also sell design patterns, egg stands and holders for displaying pysanky. In fact their catalogue has seven pages of pysanky-related bits and pieces because Easter egg decorating is a tradition hand-

ed down from generation to generation and has become famous the world over.

The art of pysanky dates back to antiquity. In the Ukraine, each part of the country developed its own unique designs and colour combinations. Your local library may have Kmit, Luciow and Perchyshyn's book, *Ukrainian Easter Eggs*, which will tell you more than I ever can. Families in the Carpathian mountains used geometric designs while those in the lowlands used floral and animal designs. Many of the motifs were derived from early Christian symbols and some of these are illustrated below.

So why not start a new family tradition this coming Easter? Making pysanky is great fun with a group of friends. Only one lot of dye will be needed. Just BYO (eggs that is!). If you give it half a chance, you'll see that you don't really have to be an eggspert after all!

TRAVELS WITH GERTIE

THE GRAPE HARVEST

by Sue Ford, Buffalo, Vic.

Back in GR 114 Sue Ford introduced us to the peripatetic lifestyle of her family as they travelled around Australia in Gertie, their refitted bus. Now, still living in Gertie, Sue shares the experience of the grape harvest in the Sunraysia District of Victoria.:

The Murray region from Swan Hill to Mildura comes alive in February each year when the pickers arrive for the grape harvest. Robinvale is on the Murray River; it is a small town with one pub and few amenities. There are three reasonably large supermarkets, a visiting dentist, a medical centre and a small, bush hospital. Mildura is approximately 80 kilometres from Robinvale and Swan Hill is about 120 kilometres away.

There is good fishing in Robinvale. All along the Murray there are yabbies from December to January and yellow belly as well as redfin. Unfortunately there are many European carp in the river, but they make good bait for your bait tin and attract shrimps, which in turn attract the fish.

One of the first things we packed in Gert was the fishing gear. We have rods, of course, and an opera house yabby pot. We picked up a grape tin used for picking wine grapes and attached a length of rope to it. With some gum leaves tied inside, and maybe a bit of soap, we throw the tin into the river, preferably near some tree roots. The shrimps gather and become your bait. Fishing is cheap entertainment and if the day is hot you can have a dip as well. There are several sandy beaches along the Murray in Robinvale.

There is also a good golf course and some barbecue areas. One particularly attractive spot is on the weir where there is a free electric barbecue and green, attractive gardens that make a pleasant place to spend a hot summer's night.

There are very few eating out places in Robinvale. The take-away cafes are passable, the local hotel fluctuates and the local Chinese restaurant can't be recommended. The club at Euston offers mediocre food at very reasonable prices. They have special nights during the picking season. Steak, pasta and smorgasbords are all available on different nights for a cheap feed. It is not



Camped beside the Murray River near Robinvale at Christmas time.
In the background, behind the tree, is the portable shower.

the best you will ever eat, but it saves you cooking and if you are tired it is worth it. The bar prices are reasonable, the service is friendly and you may have a win on the pokies as well. There is also a hotel in Euston and our last time there it was the best place to eat, but you need to book.

GRAPE PICKING

Apart from the Murray, the only other reason to visit Robinvale is the work, and there is plenty of it. We have picked grapes over four seasons and always enjoy it. When it is a good season you won't have to worry about finding work. When the harvest is in full swing the growers will come looking for you. The early grapes are picked mid to late January and it is all go from February through to April.

There are three types of picking: one

for fresh fruit, which includes domestic and export, one for winery and one for dry fruit. If you pick fresh fruit you must be selective and virtually grade as you go. You must discard bruised and damaged fruit and handle it carefully. Some places pay you to do a rubbish box, others just expect it. The rubbish goes to the winery. Dry fruit and wine fruit pickers pick everything and the faster they go, the better. There are two schools of thought: those who pick 'fresh' say it is the best and those who like to move fast and throw it all in swear by the winery and dry fruit picking.

Fresh fruit is picked into polystyrene boxes called lugs. The dry and winery fruit is picked into tins called buckets. Fresh fruit pickers use secateurs and dry fruit pickers use knives or their hands.

Often a poorly kept property will pay their pickers more to put up with low

quality fruit, weeds and the infamous love grass that is impossible to remove. If you pick fresh fruit it is easier to work in pairs so you can pick both sides. Simon and I often work different farms and manage on our own.

Grapes are a good crop if you can tolerate the heat. Robinvale has little rain in summer, but generally the evenings are cool. You begin working at sunrise and usually stop at about 4 pm. It is generally up to you how long you have off for lunch and morning tea. Some places still supply morning tea, but they may pay less. If you are working on the tractor or packing in the shed you are on wages, a fixed price, whereas picking is a contract and the grower will allot your breaks. Shed staff may begin and finish later than the paddock staff. You are usually paid on Friday afternoon and the town is busy then. We have had to queue in supermarkets for up to half an hour.

Of all the itinerant work we have done around Australia we have a leaning towards grapes. It is not laborious work, but it is constant. No one sets you a quota and we are happy to clear \$50 a day, most people do much better than that.

Rates Of Pay

These are approximate as they vary from year to year, but never too much.

Fresh fruit	\$1 per lug
Pick and pack	\$1.20 per lug
Dry fruit	40 cents per tin
Winery - Depends on variety, Gordons being the best paid	
Packing	\$10.05 per hour
Tractor	\$10.05 per hour

All work is subject to a tax file number and 15% tax.

Accommodation

The accommodation is not varied: three caravan parks or picker's accommodation. Larger enterprises like Boyanda supply a caravan park. The weir caravan park is probably the best for older folk, being clean and well run. The river park is attractive because of its setting, but it can get out of control during the height of the season. The golf club park is small and very friendly, ideal if you want a hit after work, but it does not allow tents or dogs.

The other option, and the main one for us, is the river. It is great to return to the bus each night, fish a little, have dinner by a campfire and just enjoy the



Fishing in comfort from a beach beside the Murray.
If the day gets too hot, fishing is abandoned for swimming!

beauty. We have a tripod that sits over the campfire, a camp cookpot and billy and it makes for wonderful living. There are excellent camping spots all along the river. The locals will be only too glad to direct you. Last time there we stayed at Tol Tol at Invincible, but we really prefer Gaston's Bend. We get the

bus in without any trouble and tie the dogs up when we leave for work. They are always keen to see us and we have never had a thing stolen or damaged in four years.

Gert sits happily for three months then starts without any fuss to head off again.



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SELF-SUFFICIENCY AMERINDIAN STYLE

by Nevin Sweeney, St Clair, NSW.

Can a system of agriculture, that has been practised by Amerindians for thousands of years, be adapted for Australian conditions?

I have always been interested in the history of people's struggle to provide themselves with food and while sifting through the story I found something that I could try out in my backyard. In his book about the domestication of animal and vegetable foods called *Seeds, Spades, Hearths and Herds*, Carl Sauer talks about a complex of three food plants grown together that provided the ancient native Americans with most of their staples. It kept the Amerindians going for thousands of years and was grown very widely, as far north as southern St Laurence and northern Missouri Rivers, on the fringes of Sonoran and Arizona deserts through to the highest patches of available soil on Mexican volcanoes. So it is a fair bet that it could be readily adapted to most if not all Australian climates. This amazing mix of plants consisted of maize, beans and squash.

THE THEORY

Maize (corn)

This crop provides an upright stalk for the beans to grow up and the ears of corn themselves at harvest time. Hard corn rather than sweet corn would be grown because of the storability of its produce, although some sweet corn could be grown if distances could be maintained to prevent cross-pollination (about 300 metres). Corn provides some protein and a small amount of fat, but its major contribution to the diet is carbohydrate. Where the growing season is long the corn is planted first then the beans and squash planted into the hills of growing corn. If the growing season is short the three would be planted together with an early maturing variety of corn being selected. Only open-pollinated varieties should be used so you could grow the next year's crop with seed saved from last year's crop.



Grow a variety of corn that suits the conditions in your area.

The stalks act as trellises for the climbing beans.

Beans

These legumes provide nitrogen for use by corn and squash, so allowing in-

creased yields of those two crops. Climbing varieties should be used rather than dwarf so that they can take advantage of

the corn stalks in getting their share of light and because they produce over a longer period. The beans can be eaten as a vegetable direct from the vines or allowed to dry out and the seeds harvested for eating at a later time. Either way they provide valuable protein in the diet as well as fibre, vitamins and minerals.

Squash

The squash or pumpkins are prostrate growers, spreading over the soil and completing the ground cover, reducing evaporation and acting as a mulch. The pumpkins provide a variety of edible products. The male flowers are picked and used in soups, stews and salads, the immature fruits are thinned from time to time and used as a cooked green vegetable, the mature fruits are picked and stored for later consumption. The flesh of the mature fruit is widely eaten as a vegetable in Australia, but the seeds are also valuable foods for the oil and protein they contain and are usually eaten roasted.

Well, so much for the theory, but how does it go when translated into the backyard? Not so great, but in my own defence I must say that the Amerindians knew their varieties and had a long time to refine them. Also I learned a lesson about this system, in that it is better suited to extensive cultivation than to the intensive method that I used. Now that I have finished justifying myself, this is what I did and these are the results that I obtained.

IN PRACTICE

The area of ground that I used was about two metres by three metres. It had not been used to grow anything before, but grass. I cultivated it to a depth of about 25 to 30 centimetres and dug in lucerne hay and chook poo to act as fertiliser. The varieties that I used were as follows:

Corn – Callan, open-pollinated, obtained from Phoenix Seeds.

Beans – Stringless Blue Lake, a Yates

Squash – Green Button hybrid, a Yates

The corn and squash were planted at the same time in early November, one bean seed being planted next to each corn stalk after the corn had two weeks growth. The corn was planted with about 15 centimetres between each plant, the squash around the outside of the plot and the beans about two to three centimetres away from each corn stalk.

Results

Corn: Yield from the corn wasn't bad with decent size cobs from most plants, but the secondary cobs were disappointing with none reaching edible size. This was possibly due to the close planting and the resulting competition, the corn could also have been planted earlier in the year. Also, to ensure the corn provides lasting support for the long-growing beans, the longest maturing variety should be selected.

Beans: The beans have yielded consistently and well although some increase in yield may be possible with increased planting distances. Giving the corn a few weeks head start seems to be the correct idea and even leaving it a bit longer before planting the beans, say an extra two weeks may be better.

Squash: The results of the squash were very poor with less than a half dozen fruits harvested. The squash had a chequered career from the outset, with the seeds being dug up twice by marauding chooks, and requiring replacement. From there germination was slow with only three plants coming up and only one of these attaining any size. I think if intensive planting is to be used the squash should be given a head start, with enough time to be up and growing for a couple of weeks before anything else is planted. As it was, by the time it really got going it was all but shaded out by the corn. If an extensive system with greater planting distances were used the squash would have a much better chance of surviving to play its part.

Overall

The corn and beans combined to give a dense layer of foliage which meant that the weeds had no hope, but also made harvesting a pain in the proverbial. The corn cobs were easy to pick (excuse the pun), but trying to make out the beans

against a dense green background was like playing 'Where's Wally?'. Apart from a few small beetles on the corn cobs and a bit of mildew on what little squash there was, problems with pests or diseases were nonexistent.

Conclusions

- In an extensive situation this system would be very productive.
- There is some need to experiment with varieties to establish the right ones for your area.
- There is also a need to establish the optimum planting dates for each crop in each area.
- If anybody has grown a system of this type or is now going to have a go at it I would be interested in hearing about the results.

GARDEN HINTS

USEFUL STINGING NETTLE

An infusion of stinging nettle sprayed over plants can improve their frost resistance and help prevent powdery mildew.

COMFREY FOR GROWTH

A herbal tea of comfrey fermented in water is an effective growth promontant for plants.

CARROT COFFEE

Sprinkle coffee grindings over newly planted carrot rows to repel root maggot. Wood ashes around seedlings will also help.

COMFREY

Comfrey is a good source of potassium. It can be used as a spray or a mulch and is especially appreciated by tomatoes, citrus trees and other shallow-rooted shrubs and trees.



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HOLISTIC HYGIENE

by Don Eldridge, West End, Qld

There is an odd saying that cleanliness is next to godliness; odd, because until recently soap was expensive or nonexistent and dwellings lacked plumbing. It was only in the late 19th Century, when making relatively cheap soap became possible, that people in a few countries became overly concerned with body odour. But even today not all people see a link between suds and salvation. The frequency of Anglo-Saxon ablutions amazes the French, who feel that routine exposure to dirt strengthens immune systems. They say that hyper-hygienic Americans, when travelling, tend to have more intestinal problems than do the French.

THE DOWN SIDE OF WASHING

Why scour yourself as if you were a dirty frypan? Why not let at least some skin cells fall off the way they have done for millions of years? I see little merit, for the average person, in frequent exposure to soap and water, while there are many negative aspects. Here are some drawbacks of frequent washing:

- People today are pressed for time. So unless you're ridding yourself of guilt, why waste time washing when it isn't necessary? And don't forget the extra time needed to clean all those unnecessarily used towels!
- If you shower every day, the area will stay damp and mouldy. This means even more time lost in cleaning and the cleansers are an added burden on the environment.
- The extra water used in useless washing has to come from somewhere. If we all bathed far less frequently think of the water savings! Anyone professing a concern for the environment, while showering every day, should stop and consider this.

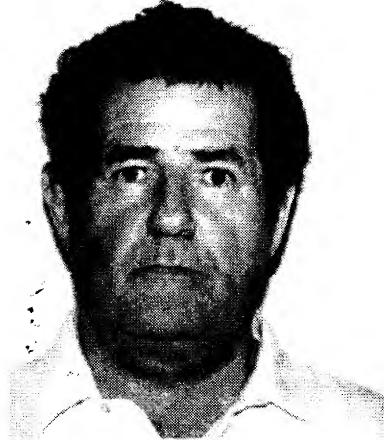
- If hot water is used it increases your electricity bill and is an unnecessary impost on the power generation system, again an environmental concern.

- Soap, which costs money, is a threat to only a few of the microbes found on skin. If you use soap that has been used by others, you'll probably end up with more microbes on you than when you started.

- Natural protective oils in your skin and hair are removed by soap; even frequent washing with plain water causes problems. If you habitually wash after exposure to sunlight, your skin's ability to synthesise vitamin D is lessened.

- Chlorine, harsh on hair, is commonly used in municipal water supplies, which also can contain other nasties. These are absorbed, especially in long, hot showers. In this water, 80 percent of trichloroethylene (a common groundwater pollutant) and 50 percent of chloroform (a byproduct of chlorination and shown to cause cancer in animal studies) can be released. These inhaled chemicals are absorbed much more readily through vapour than if they were swallowed. Surprisingly, even a heavy element such as lead is a danger. According to Steven Schechter writing in *Natural Health* magazine (Nov/Dec '93): 'The vapours inhaled during a hot bath or shower can carry heavy metals like lead directly into the blood stream via the lungs.'

- Skin naturally is slightly acidic, while soap is alkaline. Frequent washing – plus wearing clothes usually washed in an alkaline detergent – alters skin pH and may, in some individuals, cause unnecessary problems: 'Within reasonable limits a healthy skin can readjust its own pH level, but washing skin many times a day will damage even



the hardiest hide.' (Hilary Robinson, *The Weekend Australian*, 16th Oct '82)

KEEPING CLEAN WITHOUT SOAP

Since we don't want to offend the neighbours with our body odours, what do we do to replace frequent washing? One skin specialist suggested: 'Use only water for a second and third shower in a day, as long as the water is not too hot. Don't use only water every time because it dries the skin. Use a moisturising cream as soap – as I do – and apply some after each shower, bath or swim.'

Well, this is one way of doing things, but it still has all of the drawbacks listed above. Second and third showers per day?! I live, without air conditioning, in subtropical Brisbane. Since my diet is relatively low in salt, I sweat easily; yet even in summer I shower, on average, no more than once a week. How I get away with this time saving, skin saving and environmentally friendly behaviour is quite simple.

In the cooler months I use a roll-on deodorant based on tea tree oil. This suppresses the growth of the bacteria that cause body odour yet does not interfere with the body's natural need to perspire. Nothing else is needed and I can go weeks without a shower. Personal experience suggests I may be able to do this because I eat dairy products only once or twice a month.

When it is warmer, I use dilute vinegar (roughly one part vinegar to three parts water) instead of deodorant. I first started using vinegar years ago to rinse my hair after a shower, as it neutralises the alkalinity of soap and leaves the hair soft. Eventually I began using vinegar as an alternative to washing. I keep a plastic bottle of it in the shower recess. When it is time to go out and meet the

world, and when it is warm enough, I simply rub the vinegar solution all over my body. If I used plain water, my skin would remain wet for a time, but for some reason the dilute vinegar is absorbed quickly.

As well as body odour disappearing for the rest of the day, the vinegar rub-down leaves me feeling I've taken a pep pill; there is an instant surge of energy and alertness. I was amazed to discover this and decided to investigate. Eventually, because I was dealing with vinegar, I returned to Jarvis' *Folk Medicine*, a book I first read prior to 1963. To my surprise, he wrote that if people with insufficient reserve energy (now called CFS: chronic fatigue syndrome) wanted to overcome their problem they '... must seriously consider ceasing to use soap.' According to Jarvis, an acid skin attracts blood to the surface and soap destroys the skin's natural acid state.

THE IMMUNE SYSTEM CONNECTION

While this view may at first seem extreme, research has since found that the skin is more than a simple barrier protecting us from a hostile world: '...the skin is an essential part of the immune system. It appears that there are several different types of cells in the skin which trigger responses'. (Damien Downing in *Daylight Robbery*, Arrow '88)

Immune system problems are on the increase in affluent countries, where incessant washing with alkaline substances is a ritual. Jarvis' homespun wisdom now seems eminently sensible.

There is another aspect of excessive washing that harms us. Humans, as well as insects and others, traditionally have used scent in a sexual context. Researchers have found that, for procreation, women can use odour to choose men who have immune systems much different from their own, thus increasing the survival chances of progeny. If artificial cleansing or scenting blocks our natural signals, then instinctive sensible judgements no longer can be made, which may play a part in our current high divorce rate.

People in affluent societies spend large amounts of money and time trying to disinfect, cleanse, deodorise – then spend even more money on artificial scents. This is weird! So save your money, save your time, save your skin, and tap into new energy by avoiding the automatic wash!

THE RIGHT YEAST FOR THE JOB

Oops, we've made an oversight! Explanation of yeast codes for article, page 51.
(Yeast genus: *Saccharomyces*)

Gervin Wine Yeasts

Yeast	Species/Strain	Application and Characteristics
No1	<i>S.cerevisiae</i> Narbonne 7013	General purpose; clears easily
No2	<i>S.cerevisiae</i> Montrachet Burgundy Davis 522	Red, fruit-based wines; very vigorous
No3	<i>S.bayanus</i> Pasteur Inst. Davis 595	Sparkling wines; high alcohol production
No 4	<i>S.beticus</i> Davis 519	Sherry-style wines; submerged flor possible
No 5	<i>S.cerevisiae</i> GVN	White table wines; ferments down to 12°C
Varietal A	<i>S.cerevisiae</i> SF84	Bordeaux yeast for 'claret' production
Varietal B	<i>S.cerevisiae</i> CC84	For Rhine-style wines; ferments down to 10°C
Varietal C	<i>S.bayanus</i> EC-1118	For sparkling wines; high alcohol production
Varietal D	<i>S.cerevisiae</i> 71B	For fruit wines; excellent bouquet
Varietal E	<i>S.cerevisiae</i> K1	For fruit wines and mead; low nutrient needs

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HERITAGE PEARS

by David Aumann, Yarram, Vic.

The catalogue of Goodman's Nursery of Eagle Point from 1914 shows over 200 varieties of pears available for purchase, with another 20 or 30 available on special order. By the 1940s, a Nobelius catalogue I have has reduced this number to around twenty. If you go into a shop and try to buy a variety of pears today, you will find (over the course of a season) Williams' Bon Chretien, Packham, Josephine, Beurre Bosc and maybe Winter Nelis. Not much more.

There were certainly more than the 200 varieties offered by Goodmans. The list of holdings at the Burnley Horticultural Gardens from 1895 numbers just on 400. By the time that we include offerings from other nurseries of the time, there are at least 450 pear varieties known to have been growing in Victoria.

Why have so many varieties faded into oblivion? One major reason is the advent of cold storage. A hundred years ago, if you wanted a full season's supply of pears, you would have to plant a selection of varieties which ripened in succession, and then store the later-ripening varieties as long as you could through the winter and spring months. With cold storage, you can keep most varieties as long as is ever reasonably required so fewer varieties are actually necessary.

What has happened to the numerous varieties of the past? The good news is that many are still growing in old orchards around the countryside. The bad news is that, in most cases, the names of the varieties have been long since forgotten.

I thought that some of these varieties could be propagated and saved from possible extinction, if only they could be located. Pear trees are certainly long-lived, and it would not be out of the ordinary to find hundred-year-old trees still in a good state of health. If I may quote from *The Fruit Trees of America* by Charles Downing, 1880: 'There are fruit trees abroad on record as of great size and age. M Bosc mentions several which are almost 400 years old. There is a very extraordinary tree in Holme Lacy, Herefordshire, England which, in 1805, covered more than half an acre of land,

the branches bending down and taking root and, in turn, producing others in the same way.' There is no doubt that pear trees can grow very large and live very long, so that the old varieties have certainly not yet died out, they have just been forgotten.

I decided to see how many of them could be found. It's not very hard to go driving through the countryside and find a pear tree. The sites of former homesteads are usually good starting places. It doesn't take long to realise that many of these pears are different from the ones you find in shops today. It is therefore pretty easy to say that the pears definitely aren't Packhams or Williams'. It is much harder to say what they are. I quickly realised that I'd have to try to accumulate some reference material if I was to have any chance of identifying old varieties.

I took several tracks in this regard. A letter to the *Weekly Times* in January 1993 brought many responses, both from people who had old varieties and who didn't mind sending some grafting wood and from people who had reference material ranging from old catalogues to *The Australian Fruit Culturist*, a comprehensive 700 page text written in 1893. A visit to the Horticultural College at Burnley turned up another useful text, *The Fruit Manual*, by the Englishman Robert Hogg, written in 1880. A friend from Briagolong put me in touch with a man who had two more 1880 American texts. A visit to the Department of Agriculture at Knoxfield brought to light a copy of *The Pears of America*, 1923; especially useful because it was illustrated with colour photographs. Since then I have acquired several more catalogues, a copy of the *Catalogue and Evaluation of the Pear Collection* at Oregon Agricultural Experiment Station, 1957, and a copy of *The Pear in Italy*.

Speaking to people with knowledge and experience which I didn't have was also very important. As the result of contacts with a lot of people, I received quite a bit of grafting wood last winter and I put this onto pear stock. In some cases, I had already been sent some fruit, which allowed me to compare the



fruit with the textbook description. If the fruit fitted the description, I assumed it had been correctly identified. If I had not seen the fruit, I grafted the wood with the note that 'this may be . . .'. In one or two cases I received wood from sources that I had confidence in, and have grafted wood with the note that 'this is probably . . .'.

The problem of identification is still a huge one. Even with a number of references, it is almost impossible to identify a totally unknown pear. Some of these texts have line drawings of varying quality and one has photographs. Four of the five texts I have are written in UK or USA and time of maturity needs some compensation factor added to it. There is no keying system in any of the books, so if you have a pear to identify you have no option but to start at the beginning of the books and work your way through, eliminating impossibilities as you go and compiling a list of possible varieties. This is time consuming and doesn't necessarily lead to an answer anyway.

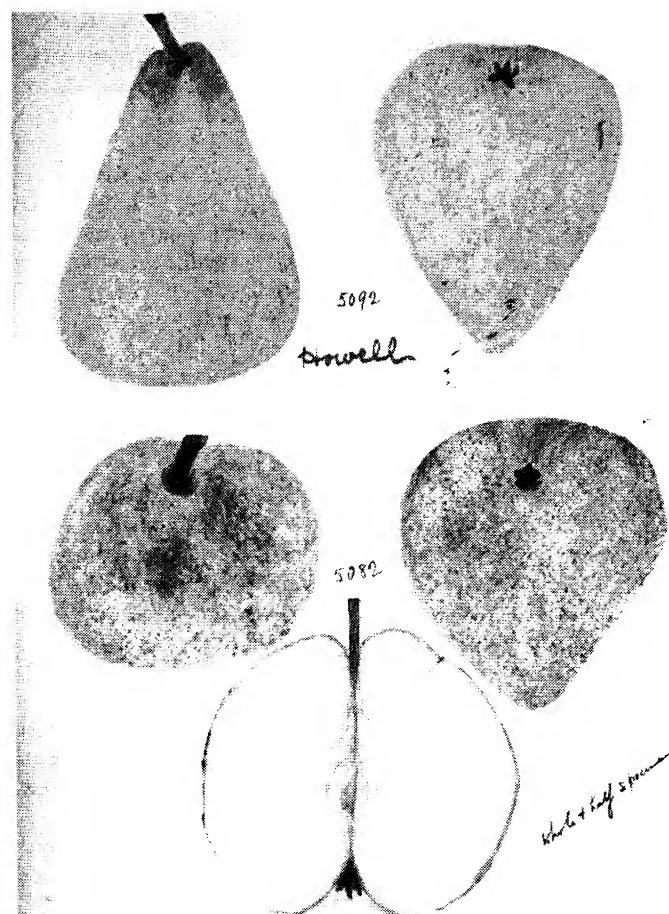
I have now had some experience with a few varieties of pears and feel reasonably confident that I would be able to identify these if I came across them again. There is no substitute for first-hand experience, but how do you get first-hand experience with these 'lost' varieties? One possible solution was to visit the Department of Agriculture and the Scienceworks Museum and have a good look at their collection of wax fruit models. In this regard, Scienceworks was especially accommodating. During some recent school holidays I spent three days in their repository of artifacts not

on general exhibition cataloguing their collection of pear models, of which they have 240, showing over 100 varieties.

The value of the collection in monetary terms is hard to ascertain, except to say that each pear model would represent a couple of day's work. Preliminary sketches, including accurate colouring, were recorded first. The fruit was then oiled and sat to half its depth in plaster of Paris. When this was dry, a layer of grease was applied to the upper lip of the plaster before more plaster was added to completely cover the pear. When the second lot of plaster had dried, the two halves of plaster could be separated, the pear lifted out, and the hollow in the middle gave the exact size and shape of the original fruit for casting in wax. Considerable skill was required for matching colours on the original and the model. Paints on early models are somewhat discoloured and often crazed, but on later models the pears are remarkably lifelike. Monetary considerations aside, the collection is priceless for historical research.

Handling the collection gave me a good idea of size, shape and colour and I was also given permission to photograph the fruit. These photographs will be a very useful complement to the other reference material I have accumulated. Scienceworks was helpful in another way too. In many cases the name of the original donor of the fruit from which the wax model was made has been recorded. Some of the models date to pre-1860 and came from orchards in Fairfield, Richmond and Hawthorn. There is little hope that the original pear trees survive. Other models are based on pears from country areas and I am presently chasing up the exact locations of the original orchards just in case the old trees are still in existence.

I will give two illustrations of successes in this way. Several original pears were donated by a Robert Whatmough of Greensborough in 1880. Greensborough is a fringe suburb, being partially heavily built on but still having a lot of open farm area. Thinking that there was a chance that I could still find some heritage pears, I made a series of phone calls trying to find the address of the original orchard from old electoral rolls. Several more phone calls led me to Robert Whatmough's 85 year old grandson! He was very interested, but gave me the news I hadn't wanted to hear, 'The old orchard's just about gone'. As I was



Old records, including sketches for plaster models, have been an invaluable reference source in identifying old varieties.

about to hang up he said, 'But the old Lawrence tree still bears fruit'. I was around at his house in under the hour and we went to look at the tree which, as luck would have it, had pears on it. These matched reference material closely and three months later I was climbing the tree to try to find some viable wood.

A substantial amount of fruit was donated by an orchardist at Harcourt, too. Taking the direct approach, I looked up the surname in the phone book and got the orchard on my first attempt! The grandson told me that the old trees have all been worked over to modern varieties, but added 'Some of them still get funny pears growing around the butts'. The grandfather's inventory of varieties was still in the grandson's possession, which allowed us to narrow the possible varieties down to about seventy, so with any sort of luck some long-lost varieties such as Eyewood, Idaho and Poire de Berriays may yet come to light.

Propagation of pears is by budding around February, or by grafting around July, August and early September, although you could graft much later than this provided you have kept your scion-

wood dormant, perhaps in Tupperware in the bottom of your fridge. It may be interesting to note that pear trees can be dwarfed by grafting onto quince. This should reduce the pear to about one-third of its full size. The only problem with doing this is that some varieties of pear will not take on quince. In these cases, double grafting is required. A 15 centimetre piece of compatible pear is put onto quince, and the incompatible pear is put onto this. If this was done over two seasons, you would get almost 100 percent success rate; however you can put both grafts on at the same time provided you accept that your success rate will drop to 50 percent or less.

I am anxious to hear from anyone who knows the whereabouts of any old pears with which they can associate a name. Unfortunately, I do not own much land and so do not have the resources to propagate huge numbers of pears and hold them till they fruit. Consequently I have to restrict myself to following up more definite leads.

I have recently constructed my own reference text for identification of Australian pears. The premise I used was

that, if a pear appeared in the 1895 Burnley holdings or in *The Australasian Fruit Culturist*, then it must have been grown in Australia. I scoured all my other resources for information on these varieties and, using scissors and paste, physically combined my information into three alphabetically arranged volumes. These run to a total of six or seven hundred pages. Of course, many local selections don't rate a mention in any of the overseas texts, and the only information I have may be a single photograph of a wax model from Science-works, or a name without any description whatsoever from the Burnley listing. The next extensions of this reference text are: (i) to intersperse the synonyms of all varieties alphabetically throughout the book and, (ii) to sift through all the Australian nursery catalogues that I have and add in varieties which haven't cropped up from the previous process.

As mentioned earlier, dates of maturity are vastly different from English or American maturity dates, and I have made an attempt to correlate their dates with known Australian dates for a large number of pear varieties. There is some

difficulty in doing this, as their ripening seasons tend to be much longer and cooler than our short, sharp summer and autumn. Graphically, there seems to be a reasonable correlation and a linear regression can be calculated. This means that a maturity date for an English pear can be reasonably transposed to Australian conditions.

A more grandiose identification scheme has occurred to me, although I have not as yet put it into action. I am hoping to set up a data base which contains all attributes of all pears: colour, ripening time, stalk length, russetting, shape etc. It should then be possible to feed the attributes of an unknown pear into the computer and come up with some possible identifications. This will not be infallible, but it's the best I can think of at present.

Recently I was contacted by a committee at Toora, Victoria, who wish to utilise some land which has been donated to them to set up a heritage pear collection. This is an exciting project, as I am not aware of any similar repository of pears (although several apple repositories exist). Grafting of varieties will

begin shortly, and within five or six years we will literally be able to see the fruits of our labours. I appeal to anyone with an old pear variety for which they believe they know a name, to contact me at RMB 7100, Yarram 3971, or Mr Bill Hankin, C/- Heritage Seed Curators Association, PO Box 1450, Bairnsdale 3875.



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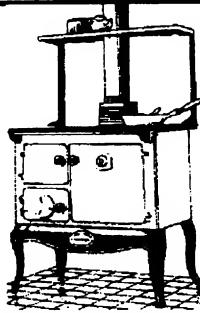
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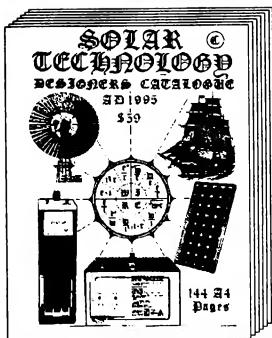
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I WISH SOMEONE HAD TOLD ME ABOUT: Fun and Games With Animals

by Cindy McMahon, Torbanlea, Qld.

All confidence, but no hope.

Here we are. We've left the suburbs and moved to a five-acre block in the small community of Torbanlea. It is here we hope the world may change for us, and we must change for this world.

At first it is the small things that must change. That fact we can't run to the shops whenever we seem to have run out of the small things we once called necessities. You learn to do without and to do without is often more beneficial than to have everything at your fingertips. Out here you learn to make lists.

Unfortunately we are still new at the self-sufficiency game and find ourselves making many mistakes. We have just found out our so-called best drake is a dud. He is a Muscovy cross, and as the Muscovy is not a true duck, but in fact part of the goose family, any progeny of a Muscovy and any other duck is therefore a mule. It cannot reproduce.

This then causes a huge problem. My six year old son loves this duck which



is no good for reproduction and only good for eating. We certainly cannot eat something that a member of the family adores so much. So we created a new group of usefulness . . . ornamental.

Upon deciding it would be good to have turkeys we went to a few properties where people had a range of turkeys for sale. All had wonderful turkeys at different ages, but my husband chose four turkeys that frankly look quite awful. Why? Because he wasn't going to leave them in a place where they didn't look after them properly.

Early one morning he found an advertisement in the paper for cheap sheep for sale. After deciding sheep would be

great lawn mowers we went to pick up a ewe or two. His idea was that we could buy a ram later and have our own meat and keep the grass down too.

After choosing the best mum and bub we loaded them into the back of the station wagon and merrily drove half an hour home with two sheep bunting the windows. Once home I turned the baby over to find a protruding penis. 'Are you sure it's not a teat?' I was asked. I was sure.

A decision was made that the hens must pay for their own food as well as supply me with enough eggs to bake with. After we had developed a regular egg delivery business these chooks decided to become true free range. They nest where they choose. Unfortunately they don't choose the hen house. Instead we have an egg hunt every day around the entire five acres. The only place they continue to lay is in my washing machine.

It truly is all fun and games.

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AN ENDING AND BEGINNING

by Athol Walter, Merewether, NSW.

In the last issue of *Grass Roots*, Athol described how he and his wife took their first step towards a country life by placing their suburban home up for auction. Here they actually move to fresh air and open spaces ... and Athol wonders what next.

Being at the stage of our lives when our children have long flown the coop my wife and I are free to indulge some of our long and deeply held dreams. Well, at least, *my* long and deeply held dreams, so we have bought a small acreage, about 50 minutes travelling time from Newcastle. Life is certainly very different out here, and it has taken some adjustments of attitude and lifestyle.

It is the little things that seem to make the most impact. My wife said after we had been here a few days: 'This is the first time I have ever lived in a place where there is no corner shop nearby.' Think about it, dear reader. We have to actually plan our shopping trips now. That is something of a shock to a couple of greenhorns from the city. No longer can we just pop around the corner for the grocery item we forgot, or the screws needed urgently for a little job. It is now a 20 minute drive to the nearest supermarket, so we are slowly learning to plan ahead as much as possible and do without in the meantime.

One of the profound early impressions for me occurred on our first night. The removal van had gone, together with the small band of wonderful people who had toiled all through a long and very hot day to get all our goods and chattels (referred to as rubbish by one uncharitable person) out of the old place and into the new one.

Those who have moved will know the feeling. There were boxes everywhere, we couldn't find anything we needed, but we were so tired we just had to go to bed. At least our bed was made. Then we turned out the light – and it was pitch black. There was no light anywhere. We were used to having the

gentle glow of a street light coming through the venetian blinds, but here there was nothing. There was no moon that night, and we could not even make out the outline of the bedroom window. It was a little scary, but we were so tired we quickly slipped into a deep sleep.

But I move ahead of myself. To actually move onto our new property was both an end and a beginning. And before I start at the beginning I hope you may be interested in a little of the end of the previous chapter of our lives.



We had lived on a large, suburban block in Newcastle for just on 20 years. It was a great place to rear our family with good schools and many amenities close by. I had made several sporadic attempts to garden and over the years had stumbled across some interesting gardening books. Confession is good for the soul, they say, so I'll do my soul some good and confess that I am an avid reader. I am not game to actually make a count of all the gardening books I have accumulated. And I have been known – just very rarely, mind you – to spend more time reading about gardening than doing any of it.

Back to books. Many years ago, I picked up a book written by an Englishman whose name I have forgotten. The book was called *Gardening Without a Spade*; and when I saw it I found myself irresistibly drawn to it. Anything that would help me dispense with the deep digging advocated in gardening books of the time was worth investigating.

The next step, which happened a good ten years later, was to spot Esther Deans' *No Dig Gardening* book in a book shop. (The discerning reader will have noticed by this time, that on the odd occasion I have a browse in a bookshop.) Both my wife and I tried Esther's system with enthusiasm and were very impressed with the results. We were a little puzzled as to what to do after the first year when all the lucerne hay and straw had broken down, but we persevered.

Over the last five years or so, I converted considerable space in our backyard from lawn to straw gardens and was pleased with moderate successes. I tried climbing beans, peas, radishes, silver beet, lettuce, rock melon, cucumbers, butternut pumpkins, tomatoes, broad beans, potatoes, cauliflowers and cabbages, not to mention flowers and herbs. Some of those things didn't go too well, although we managed most times to harvest at least a few of the particular crop.

I found that I could grow radishes (and I rather like radishes, too), climbing beans (the Purple Kings are great) and of course silver beet. The trouble with silver beet is that it grows so well you can never eat enough to keep up with it and many of our friends don't like it. But my wife makes a very nice silver beet quiche, which makes eating

the surplus silver beet easier.

We were fortunate with our previous property in that we were able to put down a spear point and had unlimited underground water. It was great for the garden and lawns, of course, and it was also very cold which provided a refreshing shower on a hot, humid afternoon.

One result of all my reading was the building of a compost bin. I cut the timber to size, creosoted it and then made a bolt-together, two-compartment compost bin. Each bin was about a cubic metre in size. Everything went into it, including all the lawn clippings, and I produced copious quantities of compost of varying quality.

One thing I learned was that I should not have taken all the lawn clippings for the compost bin. The condition of the lawn deteriorated. Perhaps one lot of clippings in three for the compost and the other two left on the lawn to feed it is the way to go. Or else, top dress the lawn with some of the compost.

Next I read a magazine article by a man called David Stephen on using sawdust in the garden. Well, that interested me as I thought that sawdust would be easy to obtain and it was free; at least it

was when I was a boy. I discovered that it was available if you had a trailer and were prepared to travel, but it was no longer free. I was able to get several loads for \$5 a trailer load and followed the article's directions about mixing the sawdust with manure on a 50/50 basis. David advocated fowl manure, but as I was able to get horse manure more cheaply, I used that. (One cannot spend one's money on books and fowl manure at the same time, now, can one?)

With my two-bin system (three bins would be better) I could turn the heap regularly and, after about two months in the warm weather, I had a beautiful, rich compost. I used it on the garden and also in pots with great success.

I recently heard a woman say that sawdust was no good in compost heaps or on the garden. I didn't say anything (what forbearance), but I can look out of the window and see the climbing beans over two metres high, heading off into the sky from the top of the frame and they are growing in nothing else but composted sawdust and horse manure.

After that first night in our new home that I mentioned earlier, I was up before the sun had climbed over the hill. I stood out on the verandah and surveyed our

new domain. Three hectares in all. Plenty of trees, three full dams and cleared areas to work with. I breathed in the clear, fresh air deeply and it all felt very good. But then, as I looked around, a feeling of panic welled up within me. And the thought came like a thunderclap: 'Well, you've got it. What are you going to do with it?' And, do you know, as I searched for the answer in my mind, all I found was a great void. Simply put, I didn't know. Perhaps I should say that the problem was not so much not knowing what to do at all, but given all the things we wanted to do, and the ever-present bogey of not enough money, what should be done first, and in what order should other things follow.

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PLANTS FOR PERMACULTURE

by Julie Firth, Geraldton, WA.

For over eight years, groundbreaking work has been carried out at the Dry-lands Permaculture Research Farm situated in the arid area north of Geraldton, WA. It is the location for a team of permaculturists who grow, trial and study guilds of useful plants to evaluate their suitability to a sandy, dry, hot and windy climate with only a winter rainfall of 400 millimetres. Years of research have culminated in a compilation of information applicable to any hot, semi-arid region of the world. The following advice on choosing plants is equally relevant to any climatic area.

CHOOSING PLANTS

Answering these questions will help you find the best plants for your conditions. They will also help you select an appropriate planting location.

Acclimatisation

Is this plant acclimatised to this area?

Where was it raised, and is it going to be placed in an environment at the same temperature as its present one?

What tolerances does this plant possess?

If perennial, will it survive through the summer conditions?

Will it need a shaded or humid environment? (Research in the library.)

Water, Soil and Nutrient Requirements

What are this plant's water requirements?

Is it salt or drought tolerant?

Does it need additional water throughout its life?

What is its preferred soil type?

Does it like acid, alkaline, saline or neutral soils?

What pH does this plant need? (pH test kits are available from retail nurseries.)

What type of drainage does this plant need?

What are this plant's nutrient requirements?

Is it a native?

Is it a light or heavy feeder?

Growth Characteristics

How fast does it grow and what is its life expectancy?

What size will it grow to?

What is this plant's root structure?



The lush gardens make an oasis in this dry area, part of the secret being placing plants in the appropriate areas for best growth and efficiency of maintenance.

Is it a fibrous or a taproot?

Is it surface or deep?

Is this plant fire-retardant? (Fleshy, sappy, or grey foliage plants normally are.)

Is this plant evergreen or deciduous?

Does it provide shade all year round?

Will its leaf drop provide garden mulch? (Deciduous trees and legumes usually provide good mulch.)

Is the plant going to be positioned around plants that will benefit from its leaf drop?

Companion Plants

What is a good companion plant for this plant?

Is it nitrogen fixing?

Will it create a microclimate?

Is the root system different from the surrounding plants? (It will reduce competition for water and nutrients if they are different.)

Uses

How many uses does this plant have?

Is it wind-hardy? (windbreak benefit)

Is it edible? (food source)

Does it have medicinal uses or cause problems?

Can it be used as a dye?

Can the foliage colour or texture be used for any special climatic effect such as reflecting into or absorbing heat from its surrounding area?

Fruit Trees

Special questions to ask for fruit trees

Is this plant a low-chill variety?

Are male and female plants needed?

Do you need a grafted variety? (This will determine the fruit-bearing age and quality.)

Does the fruit need regular picking?

Is the fruit susceptible to fruit fly?

PLACING PLANTS

Herbaceous Plants

The following is a list of commonly grown vegetables and herbs and their suggested garden bed positions. They have been grouped to achieve maximum time efficiency according to the attention they need, and their frequency of harvesting.

Pathside Plucking Plants:

- silver beet, broccoli, shallots, Cos lettuces, Chinese greens.
- mustard, cress, radish, sunflower sprouts (regularly sown salad greens).
- parsley, garlic, chives, basil, rocket (regularly used herbs).

Annual Narrow Bed Plants:

- bush tomatoes, carrots, bush beans, bush peas, *bush zucchini, parsnips, bok choi, Chinese picking cabbages, celery, *bush cucumbers, burdock, celtuce.

Perennial Narrow Bed Plants:

- bunching leeks, *eggplants, asparagus, chillies, capsicums, strawberries, couve tronchuda, collards.

Annual Broad Bed Plants (harvested once):

- potatoes, cauliflower, cabbage, kohlrabi, beetroot, onions, *corn, *pumpkins, *squash, *cucumbers, *zucchini, garlic, *melons, *Jerusalem artichokes, grains, yams, hearting lettuce.

Perennial Broad Bed Plants:

- *sweet potatoes, Hunter Valley lucerne, globe artichoke, *cassava (tapioca), *cover crop lablab beans, arracacha (perennial Peruvian parsnip), Queensland arrowroot, scorzonera, lemon grass.

Vines

Vine and trellis crops can be incorporated into narrow or broad beds where there is staking or fencing. Staking can be achieved in a variety of ways: trees, fence netting, teepees, horizontally strung wire or string. Any untendrilled crop can be tied with old pantyhose or string.

Annual Vine and Trellis Crop:

- *gourds, *luffa, peas, beans, *aerial yams, ijecka (native yam), snow peas, tomatoes, *snake beans, chokos, pumpkins, Ceylon running spinach.

Perennial Vine and Trellis Crops (wind hardy):

- *grapes, *Love-in-a-mist passionfruit, *lablab beans, black and yellow passionfruit, oyster nuts, fruiting pitaya.

Aquatic Plants

Can be grown in ponds and bogs.

Edible Aquatics:

- *Chinese water chestnuts, *kangkong



Julie Firth at work in the garden at the Drylands Permaculture Research Farm where groundbreaking research is being undertaken.

GROUNDCOVERS

(Chinese water spinach), watercress, taro, arrowhead, *Chinese sacred lotus.

Ground Covers

Semi-Drought-Tolerant Ground Covers:

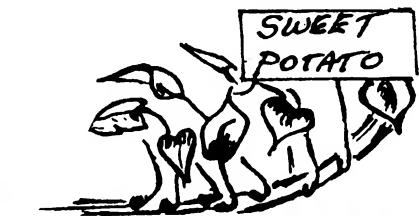
- lucerne, lipia, galenia, creeping saltbush, pigweeds, sprawling parakeelyas, creeping euphorbias, NZ spinach, muntria (*Kunzea pomifera*).

Herbal Ground Covers Requiring Summer Shade:

- lawn chamomile, lawn thyme, mints, yarrow.

*Best planted as spring crops.

To obtain a copy of the book, *Permaculture Garden Guidelines*, by Julie Firth write to: Yilgarn Traders, Lot 12 David Rd, Waggarakine, Geraldton 6530. RRP \$17.50 incl postage. It contains useful advice, recommended species and a seed catalogue.



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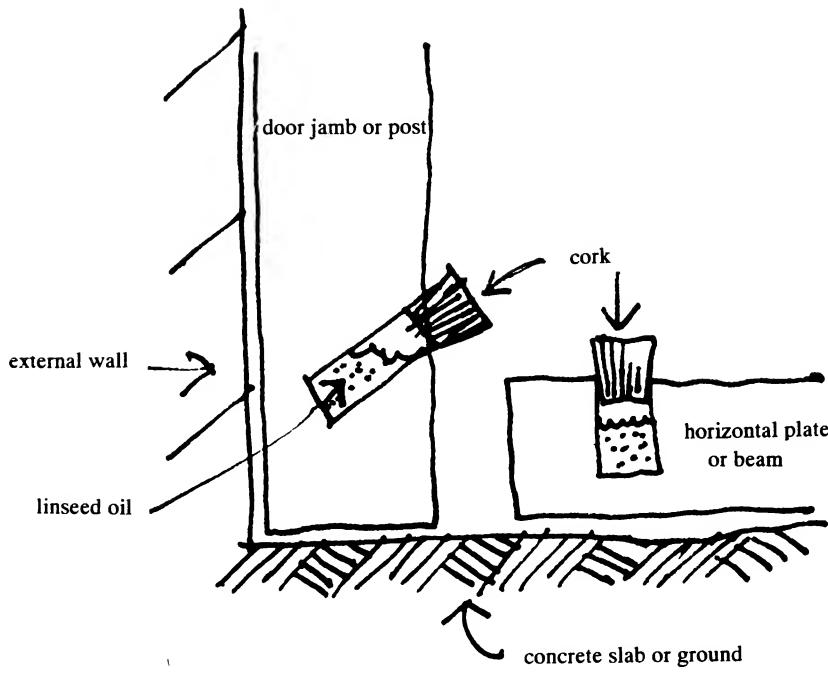
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PRESERVING TIMBER

by Ron McBeth, Wapengo, NSW.

An old timer gave me this tip for preserving timber door frames, slab huts and posts and other situations where timber is in contact with the ground.



Firstly, drill a down-sloping hole into the timber, being sure not to go too far (see diagram). Secondly, fill with linseed oil, or any other natural water repellent, even old sump oil if you wish. Put a cork in the hole. The oil will gradually permeate the timber, protecting it from the effects of extreme wet or dry weather which cause deterioration.

The only further thing to do is check every so often to see if oil has seeped to the surface and top up sparingly if it has not; this could take weeks.

A few tips:

- You will get a colour change, usually darker, so consider oiling the remainder if it is a problem.
- You will not be able to paint over it with acrylic paints and maybe others, so check paint labels before buying.
- Most importantly, check that there are no electrical wires behind the timber as they are sometimes concealed behind door jambs.



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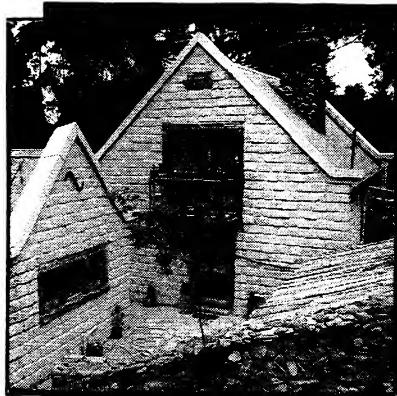
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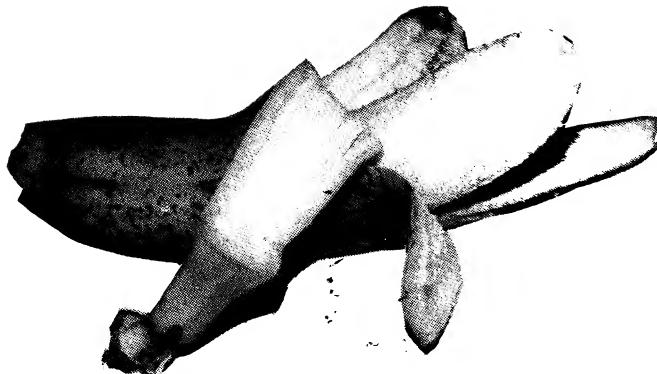
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BITE INTO A BANANA

by Kate Schneider, East Doncaster, Vic.



References to banana cultivation in India go back to 500 BC and in China to 200 AD. Bananas did not really take off in the western world however until their arrival in New York from Jamaica in the 1800s. Here in Australia of course they grew wild in north Queensland, although they were regarded by the earliest settlers with some scepticism. Joseph Banks, accompanying Captain Cook on some of his early expeditions, described them as being 'barely edible'. From these early days the humble banana has grown into a rich and delicious sweet fruit that has many popular varieties including Cavendish, Lady Fingers, Sugar and Red Fingers.

Bananas contain a reasonable amount of vitamin A and greater amounts of vitamin B and C. They are easily digestible, which makes them an ideal food for infants, and they only contain about four kilojoules per serve so make a fitting food for dieters.

When buying bananas look for plumpness and firmness. Avoid those that have bruises or discoloured skin. Ripeness is indicated when the skin has a solid yellow colour flecked with brown. Green tips and no brown specks indicate a lack of maturity.

TIPS FOR USING BANANAS

- Store bananas at room temperature until fully ripened then transfer them to the fridge or crisper. Use quickly as they will go brown. Alternatively, freeze them and give to the children as icypoles, or use in drinks made in the vitamiser.
- Do not peel bananas until they are ready to be used. To prevent darkening after peeling, brush with lemon juice or an acid fruit juice. Placing in cold water before use will also help prevent darkening. Incidentally, the browning will not affect the flavour, only the appearance.

- Bake or barbecue bananas whole in their skins for 5-10 minutes or until tender. Slit skin, serve as an accompaniment to chicken or pork.
- To dry them, cut firm ripe bananas lengthwise and dry in a slow oven. Cool and store in airtight containers.
- Chop ripe bananas and use in desserts or fresh fruit salads.
- Fry or grill sliced or whole bananas with a little lemon juice and butter.
- Pack in school lunches or use in sandwiches.
- Cook slightly green-tipped bananas to make them fully digestible.
- Use all-yellow bananas as an ingredient in cakes, breads, pies, desserts and fritters.
- For a tasty sandwich, spread two pieces of rye bread with peanut butter, add some thinly sliced banana and crispy crumbled bacon and top with lettuce.
- Remove banana sap stains by covering the stained area with dry borax and then running hot water through the material.
- Chop up discarded banana skins and mix with potting mix to pot maidenhair ferns.

TASTY BANANA CAKE

100g butter or margarine
175 g brown sugar
2 eggs, well beaten
3 ripe bananas
1 tsp lemon juice
1 tsp baking powder
1 tsp bicarb soda
pinch salt
275 g plain flour

Cream together butter or margarine and brown sugar. Add eggs. Mash bananas and squeeze them through a sieve or place in a blender. Add lemon juice and mix the bananas with the butter mixture. Sift baking powder, carb soda, and flour. Stir dry ingredients into the

banana mixture. Place in greased cake tin and bake in moderate oven for 1-1½ hours. Serve hot or wait until cold and ice with lemon or coconut icing.



DRYING BANANA

Using a coarse grater, or shredder, grate peeled banana straight into a baking tray. Cook under griller for one minute. Dry in very slow oven for 6-8 hours, stirring occasionally to prevent sticking. Use the same method to dry half-centimetre thick slices, but these may take a little longer to dry till crisp. Bananas can also be dried outside in the sun on a simple drying rack made from bird wire supported over a timber or brick frame. Peel bananas; split lengthways, place on wire. Turn over every day until crispy dry. Bring in each night or when rainy.



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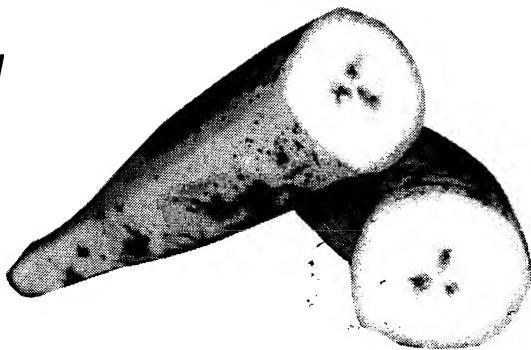
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VERSATILE BANANAS

by Jose Robinson, Wild Cattle Island, Qld.



Bananas thrive in tropical and temperate zones, but will also grow in cooler climates provided they are planted in a sunny and well drained sheltered spot. They have a fairly shallow root system so need plenty of water. Large round-based suckers seem to produce the healthiest trees. Many new suckers develop from the parent plant and only one of these should be left in the same position to grow. Pick the sturdiest suckers and plant them further away. We throw any poor looking suckers into the compost heap to break down for future soil enrichment.

When grown in rich soil and matured under the tropical sun, bananas are not only full of flavour, but are packed full of the vital nutritional necessities of life.

A COMPLETE FOOD

The banana is loaded with fibre and is almost a complete food in itself. It is rich in iron and is one of the finest sources of potassium in nature. It has useful amounts of vitamins A, B, C and folic acid. The average size banana has around 87 calories which is similar to grapefruit. One serve of cottage cheese contains more calories than one banana.

FRUITING TREES

The banana tree creates both male and female flowers on the same tree, but only the female flowers form into fruit. Banana trees usually fruit when they are about one year old and when the tree grows about eight or nine leaves at the one time. As the lower leaves brown and dry and fall to the base of the tree, if not removed, they will eventually break down and enrich the surrounding soil. The trunk of the banana tree is formed by many overlapping new leaf bases. This fleshy fibrous stem is actually edible after boiling. This is a bland tasting

vegetable. Bunches of bananas should be cut from the tree when green, but must be fully formed. The initial angular shape of the banana becomes more rounded as they mature. If the green bunch is suspended in a shed or protected area, the hands of bananas will gradually ripen from the bottom up. If left on the tree it is necessary to protect them from birds, possums and other predators by covering the whole bunch with a large plastic bag.

USES

There is no waste on the banana tree. Every part of it has a use. The green fruit can be used in cooking. The ripe fruit is delicious plain or in fruit salad or cakes. It may be skinned, sliced and dried for tasty nourishing nibbles. The waxy green leaves can be used in the art of batik as a base to spread the cloth over while waxing. The hot wax will not stick to it. Banana wine may be made from the ripe fruit. Dried banana leaves can be used as soft packing material. In some primitive countries the finer dried leaves have been used for cigarette papers.

In many of the tropical islands, fresh banana leaves double as tablecloths, as platters to hold food, and as throw-away containers for carrying food and small items. Banana leaves are used in earth ovens to separate the various meats, vegetables and fish.

Plantain Bananas

These bananas are very large in size and have a pinkish tint. They are mainly used for cooking and may be baked, roasted, boiled or fried. They can be used in soups, stews and casseroles, or in place of potatoes. The dried and ground flesh of the plantain can be made into a flour called banana meal. The mature leaves yield a valuable fibre, the best of which is manilla hemp.

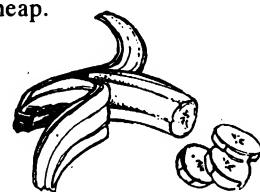
Flowers For Food

The large conical bud at the apex of the flowering stalk can be boiled and eaten, but several changes of water are necessary to reduce the bitter flavour. Sometimes the purple bracts can be tough, but the flowers are usually softer. Young white parts of shoots at the base of the plant can be boiled and eaten.

Craft

The base of leaves where they wind around and form the so-called trunk of the banana tree is known as banana trash. It is this strong fibrous substance which is so useful for making mats, hats, bags and other accessories.

When the base of the leaves, where they wrap around the trunk, dry out from exposure to the sun, beautifully patterned splotches of browns and rust colour appear on the outer section. As the green leaf browns off and dries, the whole leaf including the base portion hangs loose then falls to the ground. This is an ongoing process as the tree grows. It is this base part which I collect for my craft work. I have to be quick to rescue it before the sahib carts it off to the compost heap.



RECIPES

Banana Wine

2 kg peeled ripe bananas and a few good clean skins
112 g raisins
1.4 kg sugar (can use honey and sugar mix)
nutrient
rind and juice of 1 lemon
rind and juice of 1 orange
4.5 litres water
general purpose yeast

rind and juice of 1 orange

4.5 litres water

general purpose yeast

Put peeled bananas, skins, thinly peeled lemon and orange rinds and raisins in a saucepan and simmer for half an hour. Strain and press, stir in sugar and when cool add the nutrient, orange and lemon juice and yeast. Pour into fermentation jars, adding sugar as necessary to make a strong sweet wine. When fermentation ceases rack, mature and bottle.

Baked Banana Pudding

This is delicious and different and may be served hot or cold. Line a pie dish with buttered bread, fill with sliced ripe (but firm) bananas, a sprinkling of brown sugar, a layer of apricot jam and generous dabs of butter. Lace with a little dry sherry, cover with more buttered bread or meringue and bake in a moderate oven until browned (about 30 minutes).

Banana Smoothie

Slice 1 large banana into blender. Add 1 dessertspoon honey, 2 glasses of skim milk. Blend for 1 minute. Pour into 2 glasses with a dollop of ice cream in each and topped with cinnamon.



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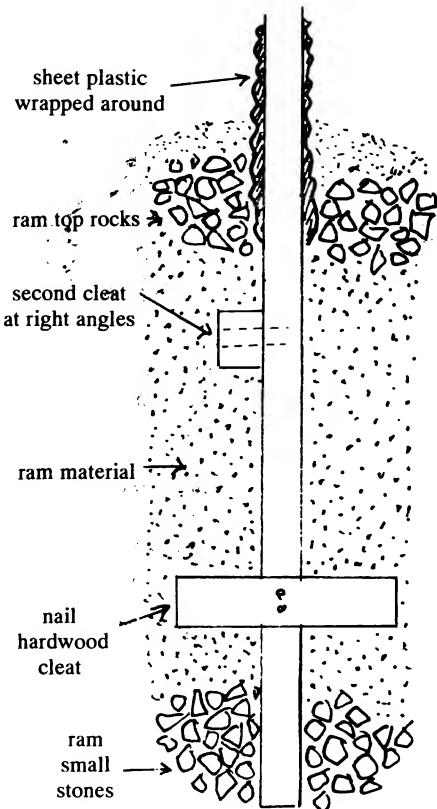
\$7.50 + \$1 postage

INSERTING POSTS

by Ray Taylor, Ludmilla, NT.

This is the method I use to insert a post securely in the ground.

- Prepaint the post with used motor oil.
- Remove and save the topsoil.
- A post hole digger, borrowed if necessary, makes the job easier.
- Dig the hole about $\frac{1}{3}$ the length of the post.
- Ram small stones in the base of the hole.
- Use a spirit level to make sure post is straight.
- Nail cleat to the post if you wish (see diagram) and a second one at right angles to the first and higher up.
- Ram all fill in well.
- Wrap plastic around the post at soil level before ramming the top fill.
- Check and correct pole for straightness at each stage.



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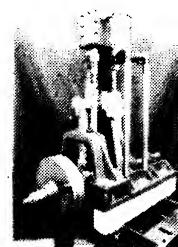
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REARING YOUNG AND ORPHANED ANIMALS

by Pat Coleby, Maldon, Vic.

It is possible to rear almost any baby animal from an early age, but a great deal of care, knowledge, patience, and large doses of common sense are needed. (That probably goes for the two-legged species, too.) It is not a task for the uncommitted. Usually all goes well, but quick remedial action is needed when it does not; there is a very thin line between life and death in the early stages.

In mammals, colostrum contains natural antibodies to see the youngster over the first few weeks. Colostrum *only* confers immunity if it is from the mother of the young animal concerned. If it is from another parent there is a very real risk of spreading disease, and it only contains the physical properties which help the meconium (first manure) through the system. I do not believe in feeding colostrum to anything except the baby of the female concerned. Always check that the meconium has passed through; it is dark coloured and sticky and easy to see.

No calf is allowed to be sold in a market until it is about three days old, when it will (hopefully) have had its share of colostrum. One way to check its age is to see if the umbilical cord has shrivelled and dried up. I have seen (and bought) calves who were probably a day or two days old, who still had wet cords. Other kinds of stock are not sold in markets at such a young age, but lambs quite frequently need homes at a very early age due to the mother either dying or deserting them. A word of warning: Some deserted lambs are quite all right, but not all. The ewe sometimes knows something we do not, and she has deserted it because she knew it could not live. Only try to resuscitate the lamb for a set period. If you are unsuccessful, put it out of its misery. I tried for ages once with a huge ram lamb, only to find later that he was spastic and had been deserted for that reason.

In the goat industry we have all spent countless hours 'catching kids'. This process was necessary because the particular auto-immune disease (AIDS-type), Caprine Arthritis Encephalitis (CAE), affecting goats was/is spread by



Calves bought at market should be over three days old. Make sure the umbilical cord is dry.

milk, and kids must not suckle at all from, or have contact with, their mothers if the cycle is to be broken – and it has to be. I learnt to make up an artificial colostrum that works very well for all types of animals; it consists of a dessertspoon of liquid seaweed, cod-liver oil ditto, and 50 millilitres sterilised milk. To sterilise (pasteurise) milk it must be heated to 75 degrees Celsius and kept there for 10 seconds. The cod-liver oil provides the lubrication necessary to move the meconium, and also natural vitamins A & D to help the youngster over the first few days. The seaweed contains all the trace minerals known in natural and easily assimilated form. The milk can either come from a 'clean' doe, or from reconstituted full cream milk as sold in the supermarket. This works fine for any young animal.

The milk replacers sold for calves

nearly always contain either antibiotics and/or processed tallow. For health reasons it is inadvisable to feed tallow, or other beef byproducts, to calves, so ensure that any milk replacer you purchase does not contain it. As well as more serious health implications tallow can upset the digestion of small animals, causing bloat. Unlike normal bloat in an adult animal it cannot be cured. Some survive and do quite well on it but not all.

It is easier to train calves to drink out of a bowl straight away. This is done by letting them suck your finger and lowering it into a pan of warm milk until it sucks the milk up. A calf teat can be used the same way. Do not insert the fingers too far back as you can get bitten. A little perseverance, a wet suit and rubber boots are needed at this stage! Do not train them to bottle feed; they are far too big and strong to butt away at

bottles and teats, even if you could find a bottle big enough to feed them. Another reason I dislike bottles is that I have had, on more than one occasion, to hastily retrieve a teat as it disappeared down the animal's throat!

A calf will need about a litre and a half twice a day at first, this can be raised to two or three litres later, but overfeeding can cause more problems than underfeeding. If feeding a calf goats' milk it can be broken down 50/50 with rainwater if there is not enough, but straight goats' milk works very well (it must be from a CAE-free doe). The obvious solution is to acquire some fresh milk, straight from the cow.

However, in Oz particularly, the land suffers from inherent magnesium deficiencies, and so do animals that graze off the pastures. It is therefore necessary to feed a little dolomite to calves to keep them from scouring, which in most cases is caused by a shortage of magnesium. In older animals unexplained scouring is very often due to a lack of copper in the diet. The dolomite, about a dessertspoon every two days, can be put in the bottom of the pan the calf drinks from and it will lick it up as it cleans out the pan. A small teaspoon of seaweed meal each day is also a good plan as it provides all the other minerals. A dessertspoon of cod-liver oil can be added once a week.

Don't try to feed a fleece animal from a pan however, their faces get too sticky and messy, a bottle and teat will do fine for them. Lambs and cria (alpaca babies) do not need the amounts of milk that a calf can consume.

It is unwise to milk-feed calves, or other young animals, more than twice a day. This regime should start within two days, very little and often up till then. If they are sucking naturally from mum, that is OK, but feeding them from a bottle or pan means they drink faster and the milk takes up to eight hours to digest in their stomachs. Giving another feed in four hours leads to putting good milk down on top of partially digested (curded) milk. They will live (generally) but they do not grow so well.

Calves, once they are going well, can have a litre and a half twice a day for the first week, with the dolomite and seaweed mentioned above in it, and can receive two litres at a time after this. Lambs and kids need about 500 millilitres at first. This can rise to three-quarters of a litre per feed by the time they are a

couple of weeks old.

Have bran, oaten chaff and lucerne chaff on hand. Make up small quantities dampened with a little water and encourage all babies to eat as soon as they feel like it. As they get to weaning stage this mix will then have the required minerals added to it plus the addition of a small teaspoon of yellow dusting sulphur a day (half for small animals) and they will not look back. Give grass hay if there is not enough grass around, but green grazing is, of course, the ideal (not kikuyu). All African grasses, barring Flinders and Rhodes, are listed as poisons.

My method with baby goats is two feeds a day for two months, one slightly larger one for the third month and then wean them. As they have been having their hay, concentrates (the chaff etc) and grass during that time, their rumens will be properly developed and they can survive perfectly well. I have weaned animals younger for various reasons and they have done well. This all sounds rather involved; as I said at the outset it needs commitment!

All animals need shelter from rain and sun when young, a dry shelter shed. In the case of calves and lambs they are better shut in until they have realised who is the provider of food. One does not want to have to chase them around when teaching them to feed and get used to people. Of course, fresh clean water should be available from about a week old, prior to that they have to learn to drink their milk.

So far we have dealt with healthy young who do what is expected of them. But remember, especially with lambs, they are usually orphaned because of some trauma. Always have on hand a bottle of injectible VAM (vitamins, minerals and amino acids in liquid form), a bottle of vitamin B12, and a couple of bottles of vitamin C in liquid form (see below for suppliers). Any baby that is really poorly needs a shot of all three to help it on its way: 8 millilitres of each for a calf, and 1.5 millilitres of each for lambs and kids. Sterile procedures must be used: swab with alcohol or metho, and use a sterilised needle and syringe. Inject into the side of the neck, between the ear and the shoulder, intramuscular, about half a centimetre deep. This usually makes them feel good enough to have a try at drinking and sucking. For a calf that starts to scour, give a heaped teaspoon of dolomite (this is calcium

and magnesium in natural form) mixed with a heaped teaspoon of vitamin C powder tipped straight into the mouth, dry, every two hours until the condition improves.

Remember that small animals become *big* animals. Do not play with a baby calf and make it butt and chase around. Such tricks are funny in a calf maybe, but *not* in a full-grown cow or steer. This applies to foals as well, in fact all baby animals. Human beings are rather puny creatures strengthwise and we can only live in harmony with animals who are a great deal stronger than us by kidding them that we're in control!

References

Works of Dr WA Albrecht.

Hungerford's, *Diseases of Livestock*

Dr Ross A Mackenzie, Paper on African Grasses
Suppliers

Equine Supplies in NSW sells all the liquid vitamins mentioned: 74A Mandoon Rd, Girraween 2145. Ph: 02-9688-3220.

VAM, 100 ml, \$16.75.

Vitamins B12 & C, 50 ml, \$4.65; 100 ml bottles also available.

Freight on any small parcel is \$5.

Any good fodder store can also supply the above, but the prices will probably be higher. Size 18 needles & 25 ml syringes are needed.

Further Reading

Healthy Land For Healthy Cattle, Pat Coleby, Night Owl Publishers, PO Box 242, Euroa 3666. RRP \$14.95 + \$2.50 postage.

Calf Rearing: Guide To Rearing Calves In Australia. Available from: Agmedia, PO Box 258, East Melbourne 3002. Ph: 1800-800-755. RRP \$29.95 + postage.



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A HARD WAY TO LEARN

by Alison Marshall, Bemboka, NSW.

We sympathised with Alison Marshall's distress when her first attempt at rearing a newborn calf ended in tragedy. It is a hard but, unhappily, all too common way to learn about caring for young animals. Even the most experienced farmers and vets are not always successful in rearing baby animals, so the importance of learning and being prepared to cope with possible problems before acquiring animals cannot be overemphasised to country 'newcomers'. It could prevent unnecessary suffering for the animal and trauma for the people concerned and, being very pragmatic, the death of an animal is wasteful of money, time and emotions.

Craig and I are new to country living. Having both grown up in major cities we decided to head bush for the greener pasture of a simpler lifestyle. With dog, cats and horses we settled on to our newly purchased forty-acre property. Christmas '95 brought the arrival of another dog and ten chooks. A year later we lived in relative comfort in our tin cabin whilst discussing house and garden designs and children.

Some months ago we were informed of the birth of what was to become our first Jersey calf. We took the heifer from her mother when she was six days old and gingerly placed her inside a yellow feed sack, with the top tied loosely around her neck. I gently cradled the little thing between my legs in the front of our truck on the way home. She had a white spot on her left shoulder, the only identifiable mark on a fawn body. Her bottom teeth protruded somewhat like those of a gorilla. Her big, brown, long-lashed eyes stared in fear and wonder.

We purchased the powdered milk replacer and teat from the produce place in the village. The breeder's warning of: 'Don't overfeed her, if she scours feed her junket,' rang in my ears. It was, apparently, a common experience with young calves.

My partner left for a week of work on Sunday, the day after 'the baby' arrived, leaving me with the care and maintenance of the new calf, sprouting seedlings and all other established animals. Within two days my new baby was following not only me but the dogs as well, headbutting my legs with quite some force and sucking on our German Shepherd's oversized belly button. Chilli, our German Shepherd, responded tenderly, cleaning the calf as though her own pup and licking the calf's face as she drank her bottle – until I realised Chilli was also eating the calf. As regular as clockwork in the morning the calf

demanded her feed and I obliged, delighted at how she was beginning to recognise my voice.

At the end of this first week Craig returned. Most of the seedlings had wilted beyond redemption and the calf had begun scouring. Upon discussing our respective weeks we realised that I had been badly underfeeding the calf. Instead of mixing 170 grams, or six *ounces*, of powder per litre water, I had been giving her about *six grams*: four tablespoons instead of a full cup and a half! I can't stress the importance of getting this, of all things, right in calf management.

She began passing blood in the faeces and we snapped to attention: corrected the powder content, consulted cattle disease books I had purchased more than two years earlier, rang the breeder and the vet, picked up drugs and administered them, and kept the dogs, especially Chilli, away.

I rang a local grazier to see if she had any further advice or intramuscular antibiotics she could spare (the vet being a 100 kilometre round trip). A bottle containing about three days supply was produced from the fridge. With syringe in hand I headed home for my first 'shot' at being a home veterinary surgeon.

Despite all my efforts I soon had one very sick calf. She was wrapped in newspaper and towels and on a bed of straw to try and keep her warm. I watched helplessly as the life I had so enjoyed for only one week slowly ebbed. She lay as though already dead, mouth slack, eyes open and staring listlessly. Her feet and legs were so cold. Only the slow rise and fall of the newspaper and her soft breath on my cheek when I got down low enough told me she was struggling to stay in this world. She had been fed for two days on nothing but antibiotics and rehydration granules.



She could no longer walk, stand, suckle, raise her head, moo, move or even get out of her own waste. I had washed her bum, cleaned the shed, changed the straw, sat with her, fed her mixture through a syringe, sung to her, cried for her, over her, and for me. I'd given her a shot in the bum and oral antibiotics.

My warning to other 'would-be's' is simple. Take heed of the breeder's advice, but listen to some from me. Whatever you do, don't underfeed it. Realise it is a cow, not a kitten, or a puppy or any other animal we city folk have lived with. It's a baby. Try to leave it with its mum for as long as possible. Ask questions, read about them. Don't make the same mistakes we did. Keep dogs and other domesticated animals away. Sterilise everything before and after feeding. Have specific drugs on hand and know how to use them. Don't learn as we did at the expense of the life of another innocent creature.

Out of ignorance I inadvertently brought about the death of baby Mogilla. Through writing my experience I hope to allay the heartbreak and needless suffering of either another calf or human surrogate mother. The frantic effort we made in an attempt to pull the calf through was not wasted in the experience we gained, I only wish we'd been successful.

Mogilla lies buried, wrapped in a special blanket, under a serene old tree on our southern boundary.

RECYCLING RUNS RIOT

by Roberino, Arrawarra Beach, NSW.

Another innovative way of re-using milk cartons.

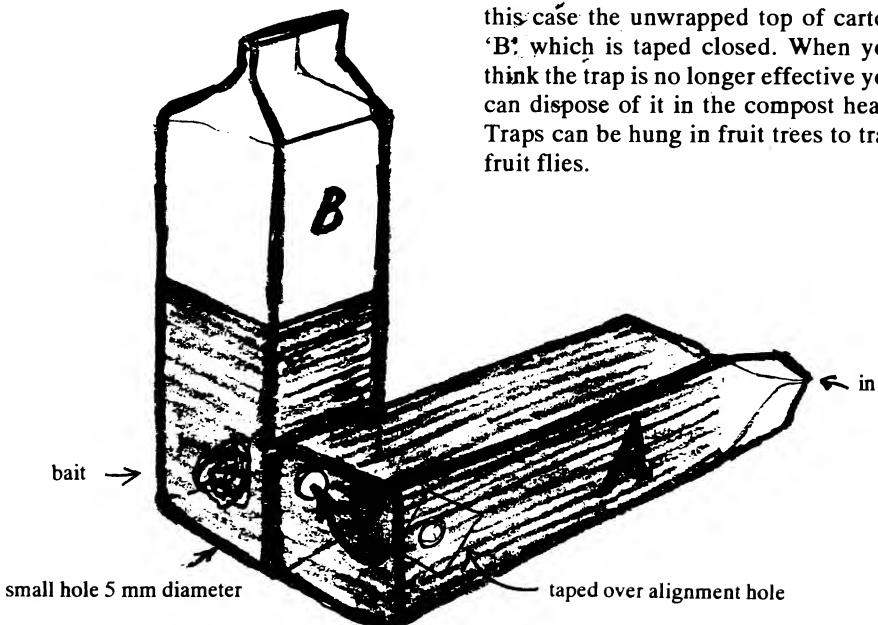
To make a flytrap from two used milk cartons, you need to wrap one fully in black plastic and the other to half its height. Stand one vertically and lie the other horizontally beside it as shown. Tape them firmly in this position.

Now use a sharp screwdriver to pierce a hole (about 5 mm diameter) which goes through one side of carton 'A' and then the other where it is taped to carton 'B'. This second hole pierces the sides of both cartons giving access to carton 'B'. Tape over the first hole in carton 'A'.

A piece of meat or fruit is placed in carton B and the top taped shut. The bait depends on what you want to trap: meat for blowflies and mosquitoes, fruit for fruit flies. The top of carton 'A' is left open to give access to the bait.

After the pests have eaten, their instinct leads them towards the light, in

this case the unwrapped top of carton 'B' which is taped closed. When you think the trap is no longer effective you can dispose of it in the compost heap. Traps can be hung in fruit trees to trap fruit flies.



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If you have queries on any type of livestock send them in and we'll get our panel of experts to research the problem for you. Send them to Livestock Advice Page, Grass Roots, PO Box 242, Euroa 3666.

CALF CARE

As a new reader of GR I was delighted to see such a page as this and I have a problem that you may be able to assist me with.

Is there a natural method of strengthening a young calf's immune system to prevent diseases, particularly scours, via their dam (or even sire). I know there is a vaccine available to help alleviate this problem but maybe there is a better way. We always treat the new-born calves' navels with iodine and see that they get plenty of colostrum. The milkers receive steamed and rolled grain with added dolomite in their bails and graze oats in winter, dolicos lablab in summer and improved grasses and clover other times. Artificial fertiliser is a thing of the past; we now only apply rock minerals to the three hundred and ninety acres on which our family has run our Jersey dairy herd for the last forty-seven years.

I would be very grateful if you had some advice on this very distressing problem.

**Linda Phillips,
KANDANGA 4570.**

Scours in cattle and other stock are due to a lack of minerals. In calves it is almost invariably a lack of magnesium, and in adult animals (according to Hungerfords' 'Diseases of Livestock', and my own experience) a lack of copper and sometimes sulphur.

Although your farm is refreshingly well run I would say you are still suffering mineral shortfalls and/or imbalances. A loose-mix, free access covered lick can be made up as follows:

25 kg dolomite (Flinders dolomite, mined in your state is fine)

4 kg copper sulphate

4 kg yellow dusting sulphur

4 kg powdered seaweed meal, there are two sources of this that I know of: Natrakelp and Vitagran.

That lick takes care of a great many cattle herds and the levels of the minerals are sustainable. The Queensland DPI did tests on cattle that had been taking it heavily for nine months and the levels of all minerals were as they should have been.

I would advise an analysis of your land, because the calves would not have this problem if all the minerals were in order. The sulphur in that lick is incredibly important, without it the amino acids in the gut do not work and the cows cannot absorb selenium; it

also keeps them free of exterior parasites. The copper is needed for immune function, resistance to interior parasites, coat colour, prevention of foot problems, and many other diseases. The seaweed provides selenium, and all the trace minerals, but not quite enough copper, hence the lick.

Any calf that scours persistently should have a dessertspoon of dolomite with some added vitamin C powder popped into its mouth once a day. This should work pretty quickly.

The new book, 'Healthy Land for Healthy Cattle', will be of help.

Pat Coleby.

HERBAL INSECTICIDE LOTION

Readers may remember a tick repellent formulation for animals appearing in this column in GRs 109 and 110. It did the job but was none too gentle on the skin. Lately I have been trialing another mixture recommended by Juliette de Bairacli Levy and found it is as effective but easier to use and kinder to the skin. The amount of eucalyptus oil is proportionally lower thus less irritating.

Put into a large container 250 g derris dust, 60 ml eucalyptus oil and 1.2 litres methylated spirits. Seal to prevent evaporation. Let steep for four days. Shake morning and night. Filter through some cotton. Have a 4.5 litre container ready and add the fresh tincture then dilute with rainwater (or distilled water) to fill the container.

This makes a lot, so I halve the amounts and as all solids are removed it can be put into a trigger spray for easy application. I have used this liquid on dogs and horses daily with no irritation on bare skin, but do keep it away from the head and do a test patch before use. It is no use on dogs which swim in dams as it would wash off and contaminate the water. Please do not use on small animals like cats, rabbits etc. They are just too sensitive.

Derris is available as a vegetable dust and the active ingredient listed must be rotenone not carbaryl. It is a pesticide so handle accordingly. It breaks down in sunlight so keep your container out of direct light and apply the lotion about every second day or as necessary.

Paula Kerslake,
MANGROVE MOUNTAIN 2250.

CAT LITTER

Because my sister has a cat and uses kitty litter I passed on the tip about using potting mix for kitty litter and she informed me the following:

Whilst working at a large Sydney hospital she and other members of the staff were told that potting mix could be a possible source of Legionnaire's disease contamination. They were told to wear a mask when using same and to scrub their hands after handling it.

**A Maule,
POINT FREDERICK 2250.**



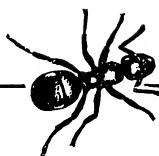
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ECO NEWS

REGENT HONEYEATER CONSERVATION

After months of intensive effort, the on-ground action to save the Regent Honeyeater is really starting to show at Lurg and surrounding districts.

Landholders in the Molyullah-Tatong and Greta Valley Landcare areas are committing themselves to a major project to protect and restore the last fragments of the ironbark forest which once covered the entire foothill slopes from Glenrowan west to Kilfeera.

Despite the serious dieback and mistletoe infestations, this district is one of three critical habitat areas in Victoria for the endangered Regent Honeyeater. The birds arrive in winter each year to feed on the flowering ironbarks but we are losing the old habitat trees at an alarming rate. With only 1000 to 1500 of these birds left in the world, it is a really important issue.

For more information contact Ray Thomas on 057-611-680. Reprinted from *Victorian Landcare*, Issue 2, Summer '96.

METHYL BROMIDE PHASE-OUT

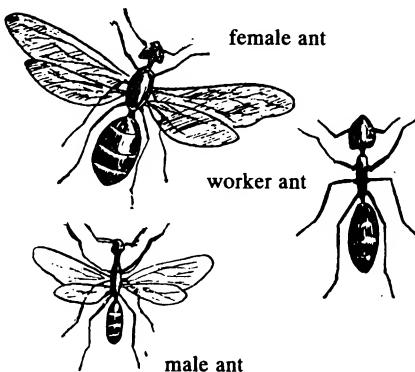
Methyl bromide is a fumigant which has been identified as a significant cause of ozone depletion in the atmosphere. The International Methyl Bromide Technical Options Committee has made a recommendation to limit its use which was adopted by all nations that signed the Montreal protocol on protection of the ozone layer. The control will mean a 25 percent reduction in methyl bromide emission by 2001 and a total phase-out by 2010 in developed countries. The inaugural chairman of this international committee, Dr Jonathan Banks of the CSIRO, was officially honoured by the US-EPA with the award of the 1996 Stratospheric Ozone Protection Award for his effort to protect the ozone layer by developing alternatives to methyl bromide uses in critical agricultural industries.

From *Trees And Natural Resources*, December '96.

PURIFYING SOLAR POWER

Scientists in New Mexico have developed a process to purify large volumes of chemically polluted water to a safe

drinkable standard. Energy from the sun is focused, by means of mirrored parabolic troughs, onto glass tubes containing the contaminated water and titanium dioxide which acts as a chemical catalyst. The resulting reaction converts organic pollutants (such as pesticides, dioxins, PCBs, cyanide) into carbon dioxide, water and simple acids that can be easily neutralised.



DON'T STEP ON THE ANTS

The importance of ants in the ecology of bushland areas has been studied by retired farmer, Archie McArthur. He has discovered that an area of healthy native vegetation may contain as many as 100 ant species per hectare. There can be 800 individual ants per square metre of bushland – this means eight million ants per hectare.

Ants, although individually very small, are responsible for the transfer of a lot of energy. They eat plant material, move enormous numbers of seeds, and themselves form the base of a food chain of other larger creatures. A bushland area supporting a large number and variety of ants can more easily cope with sudden changes in invertebrate populations. The greater the variety of ants the more biodiversity the bush can maintain.

BLUE-GREEN ALGAE BREAKTHROUGH

Traditional methods of controlling blue-green algae outbreaks have used copper sulphate to kill the bacteria, but this has left the toxins produced by the algae (really a bacteria) unaffected. These toxins can cause fatal liver disease in live-

stock and have been linked with liver cancer in people. Recently an as-yet unnamed bacterium has been discovered that produces enzymes capable of breaking down the toxin produced by the blue-green algae.

Other research being conducted at Wollangbar Agricultural Institute is investigating the use of a variety of bacteria to break-down pollutants at old cattle dip sites and agricultural heavy metal contaminants.

AUSTRALIAN CONSERVATION FOUNDATION NEWS

The Queensland Minister for Natural Resources has recently rejected a proposal for cotton irrigation on the Cooper Creek after representations from environment groups, including ACF, and presentation of scientific evidence demonstrating that environmental degradation would inevitably result from removal of water for irrigation.

In October, ACF and Native Fish Australia launched a campaign to conserve native fish in the Murray-Darling river system. Water management for human needs and competition from introduced species such as carp have led to a serious decline in native fish populations. The campaign aims to return water to the system and restore riverine, bank and wetland ecosystems.

Months of negotiations led up to the announcement, in September last year, of the NSW government's acceptance of the forest 'conservation option'. Key points include a halt to logging in 671,000 ha of forests pending further study, the declaration of 150,000 ha of wilderness and nine new national parks encompassing over 45,000 ha. A substantial increase has been made to the area of national park in the Eden woodchip area.

ACF relies heavily on volunteers for all aspects of its work. At present there is a need for volunteers with computer, data entry and clerical skills. Melbourne people interested in volunteering can call Sue Schudmack on 03-9416-1166. Other states can phone their state office: Sydney 02-9247-4285, Adelaide 08-8232-2566, Canberra 06-247-3013.

FEEDBACK LINK-UP FEEDBACK

Dear Editors,

I am a registered carer with NANA (Native Animal Network Association) and have a licence to care for injured or orphaned wildlife. I have tried many avenues for a **HUMIDICRIB AND AN INCUBATOR** with no success. I wonder if any readers have any ideas or could help with some plans for either or both as I have a very handy husband when it comes to building things. Also, any ideas on how to preserve eggs?

Barbara Bateman,
14 KcKellar St, BRAIDWOOD 2622.

Dear Friends,

It is only after putting an article on OCAS in GR 117 that I realised what wonderful gardening enthusiasts there are around our continent. We have had phone calls, letters and cheques from every state, including NT where one lady from Tennant Creek is going to give them a go. The phone calls were most impressive with folk quite happy to chat for up to half an hour, even though they live as far away as far north Queensland or WA. Some folk have sent us seed to try, for which we are most grateful. One lady is enquiring about potato onions (which I know nothing about) and unfortunately she didn't write a return address. Anyway, now I'm curious: what are potato onions? Here's another one: someone, somewhere, has mentioned **PINK FUR POTATOES** and reckons they're great. Any ideas?

Anyway, the response for oca seed tubers has been so good thanks to GR that I have completely sold out for this year, so no more cheques please. Lynette wishes to know about the starch content of ocas compared to spuds. I believe ocas would have very little starch content, if any, as they are in a different group from potatoes; ocas being oxalis while spuds are solanum.

Finally, to all you Kiwis out there who contacted me, I am glad I made your day. You must have missed your New Zealand yams a hell of a lot. Mandy from Esperance WA couldn't thank me enough over the phone and at that stage I hadn't even sent them. GR is certainly a great magazine and my thanks go to Mary, Megg and all the crew.

Dave Fergusson,
RMB 6705 Main Rd, WARRION 3249.

Dear Readers,

I'm after a copy of Pat Coleby's '**NATURAL PET CARE**' (out of print). If anyone has a spare they'd like to sell I'd love to hear from you, or anyone in the Melbourne area who'd consider a short loan of their copy, also appreciated.

Sue Robertson,
5 Brooke St, NORTHCOTE 3070.
Ph: 03-9489-0453 (reverse charges OK).

Dear GR,

Thank you for a great magazine. Before my husband myself and our two children moved to PNG I was not a self-sufficient person much at all. I can now make almost anything with not a lot of resources. The recipes, articles and hints in your magazine are a great help because you just cannot buy a lot of things here. Here is a recipe for **CHEESE** and one for **WORCESTER SAUCE** that have been requested in Feedback recently.

Sailors Cheese

Eight cups milk, 6 tbsp lemon juice or vinegar, $\frac{1}{4}$ cup warm water. Warm milk to almost boiling, then take off the stove and add the lemon juice or vinegar mixed with the warm water. Stir a little, then let sit for a couple of minutes to allow curds to form. Strain the curds through muslin or cheesecloth and discard the whey. Wrap the curds in the muslin (you can add herbs now if you want and a little salt is nice). Place the wrapped curds in a colander or strainer or a tin with lots of holes punched in it. Now put a couple of weights on top of the curds and leave for 12-24 hours. This squeezes out any excess whey. This soft cheese can now be eaten. To age, wrap soft cheese in a cloth soaked in vinegar then dipped in wax. Once the cheese is wrapped more wax can be added. Place cheese in the fridge for about six

weeks. NB. All utensils and cloths must be very clean otherwise there is a slight risk of botulism.

Worcester Sauce 1

Four cups brown wine vinegar, $\frac{1}{2}$ cup treacle, 30 g cayenne pepper, 30 g whole (green fresh) ginger bruised, 30 g sage dried, 30 g mace, 2 lge onions roughly chopped.

Boil gently for 1 hour, when cold, strain and bottle. Can use in 4-5 days.

Worcester Sauce 2

Four cups brown wine vinegar, 2 cups treacle, 30 g cayenne pepper, 15 g whole cloves, 50 g mace, 30 g fresh ginger bruised, 30 g salt, 30 g garlic cloves peeled, 1 nutmeg bruised, 2 medium onions chopped. Boil gently for one hour, cool, strain and bottle. Ready to use in a week.

Linda Irvine,
C/- PO Box 2183, LAE,
Papua New Guinea.



Dear Megg and GR Readers,

I would like to commend Allyson Everard for her care of her **EX-BATTERY CHOOKS**. Her letter was published in the June/July Feedback pages. Like her, we too have had good experiences with hens bought from batteries (or chook factories). My partner and I live on a farm just outside of Perth. To boost up our flock we decided to buy a few more hens. Many people advised us against buying battery hens because of the risk of disease and deformities.

First of all we bought two hens and named them Eveready and Duracell, for obvious reasons. When we brought them home we were saddened by the way they had difficulty in walking and they didn't seem to know how to scratch the earth, stand up properly or to have dust baths. We were also a bit worried about how the other chooks would treat them. Would they attack them because of their obvious weaknesses? When we had brought in nonbattery birds in the past, there had sometimes been a bit of a chook brawl to re-establish the pecking order. To our delight, this didn't happen with the battery chooks. The older chooks easily accepted the battery hens. The newcomers soon grew beautiful new feathers, had no trouble gaining weight and learned true chook behaviour. They still have some trouble pecking with real accuracy when it comes to small insects because they were partially debeaked at the battery farm.

Eventually, we went back and bought six more of these poor creatures. We named them 'the Birmingham Six' - they had finally been freed. Because we bought them when their so-called best laying season was finished, we only paid \$1 per bird. They were a year old. Even so, they are still some of our best layers a few years later. I must admit we have some 'free-loaders' amongst our bunch of chooks, but we haven't got the heart to 'cull' them as we have been advised to do.

A couple of our battery girls still prefer to lie down in some hay during the night, rather than sit up on a perch. Despite this, most of them have settled in well and seem to have relearned how to behave like a free chook.

If anyone has some good tales to tell about applying the principles of **BIODYNAMICS** to their farms and gardens, I would be interested to hear from you.

Maria Northcote,
C'est la Vie Farm, PO Box 200,
WUNDOWIE 6560.

Contributors and correspondents who want letters or articles returned are requested to include correct postage.

FEEDBACK LINK-UP FEEDBACK

Dear Readers,

Great magazine with lots of interesting and informative ideas. Maybe there is someone who can recommend some products to me. I'm after 1) a **FOOD PROCESSOR** (and attachments) that is capable of making excellent nut butters from almonds and cashews etc; 2) A **BREADMAKER** that can deal with rye flour and also sour dough.

If anyone has had any experience in using these products which they can vouch for, the information would be appreciated. The appliances need not be the latest models because I would probably be looking around for second-hand items first.

Any readers living in the area interested in doing some surplus plant swapping, please feel free to contact.

J Sidhu,
58 Beacon Dr, CORNUBIA 4130.

Dear Grass Roots,

Nearly 20 years ago, as I was entering adulthood, I regularly read *Grass Roots* magazine. It always fuelled my sense of naturalness, reinforcing my need to keep my life as simple and organic as possible. As the years have gone by, Nick and I have built ourselves a beautiful home on a luxuriant piece of land. The list of skills, knowledge and experiences we have acquired along the way is limitless. As long as we are living, we will continue to learn.

Now we generate our own power, grow as much of our food as possible and we home educate our children. That is, we don't send them to school because we believe in ourselves. We do also appreciate the many manufactured goods around our home such as solar panels, tools, cooking utensils, etc. We acknowledge the need for a blend of both manufactured and natural goods.

I publish a magazine in support of people who want to educate their children outside of schools. There are as many styles of **HOME EDUCATION** as there are people! The style of education chosen by families can be unique to their personalities and lifestyle. Through *Stepping Stones* I encourage people to do what's right for them and if they don't know what suits them I help them see that experimenting, awareness, and discovery are central to learning. *Stepping Stones* spreads information, inspiration and experiences about learning. I'm sure that many of you have something to share. Will you write to us? Please send your contributions to:

Stepping Stones,
Grace Chapman,
PO Box 581, ATHERTON 4883.



Dear Grass Roots,

I am eager to communicate with anyone who has experienced **SEVERE PSORIASIS**. Has anyone employed the methods set out in Dale Alexander's *Dry Skin*, published in Britain in 1980? I would be grateful to hear from anybody who can offer any information on the treatment of this stubborn and clinging ailment.

S Dawson,
1A Don Ave, SEACLIFFE PARK 5049.

Dear GR,

Just a reply to some GR Feedback letters in no 114. Mrs Mary Phillips - **MAGNESIUM SUPPLEMENT**. Please be careful Mary. Magnesium intake must only be half of daily calcium intake or else you'll cause a calcium deficiency. Likewise, if you take calcium supplements ensure adequate magnesium is available each day else you'll cause a magnesium deficiency. Both are essential to bones, teeth and nerves. NEO-LIFE Cal-mag is made of ground eggshells, calcium glycinate and magnesium glycinate at a ratio of 2:1.

T Dickson, **ANXIETY ATTACKS** - B complex vitamins, calcium and magnesium. A deficiency of these will cause osteoporosis in the long run and nerve problems, tension, anger etc in the short term. You know when you're B deficient if you are almost asleep and you feel and dream you are falling and you wake with a shock or jump. Also your tongue and feet burn.

Jennifer Midgley,
14 Casuarina Ave, MEDOWIE 2318.

Dear Readers,

I am very interested in self-sufficiency. As a result I wish to find a course or a very good **BOOK ON SELF-SUFFICIENCY**. If anyone could advise me on either I would appreciate it.

I have experimented with **SOAP MAKING**, but wish to make it from ashes. I have so far failed. I would appreciate advice on that one as well. I am interested in buying a **GRINDER** (preferably a stone grinder). If someone could sell me a second-hand or new one please let me know.

I am also after **DISTILLING EQUIPMENT** (I have no idea of the cost of this). It will of course have to be affordable. The simplest equipment would do.

Dina Serensen,
8A Mabel St, TOOWOOMBA 4350.
Ph: 076-381-364.



Please keep letters brief, clearly written and relevant to self-sufficiency topics. Letters pushing barrows (religious, political or other) will not be published.

Dear GR,

Maybe readers can help me locate two items I have been looking for and seem to have run into a brick wall with. 1) an attachment for a vacuum cleaner called octopus, supposed to be able to use to suck dirt/dust from a drawer full of utensils. Pins and small items do not get sucked up into vacuum cleaner. Makes cleaning out drawers etc much easier. Maybe someone has one or knows where I can get one. 2) Heavy duty plastic square grids approx 45 x 45 x 2.5 cm. These can be dug into ground, especially in walkways/driveways. Put soil over it and you can grow grass and mow over it. Makes area solid and you can then have an even lawn area.

Would appreciate any help.

D Tattersall,
PO Box 67, BOOROWA 2586.

Dear GR Readers,

I am fourteen and have been reading GR for some time, I find it a really interesting magazine. I live on five acres in the Byron Shire. I have lived here all my life with my seven family members. We are thinking of moving to a 120 acre property nearby. Anyway the reason (one of them) I am writing is to ask if anyone out there has the addresses of some **BULK CANDLE WAX SELLERS** which would be greatly appreciated.

I am also interested in having a pen friend in my age group (preferably female, I am male). I would like someone who is similarly interested in music, art and crafts. Thanks for the great magazine. Please write. Also does anyone have any helpful hints on creating dreadlocks?

Willem deVries,
Settlement Rd, MAIN ARM 2482.

Look in the *Grassifieds* for sellers of candle wax.

FEEDBACK LINK-UP FEEDBACK

Dear GR Crew,

There seem to have been quite a few people asking about using **LYE FOR SOAPMAKING** in recent issues of GR. If it is of any help to those who have asked about it, lye is a caustic alkaline substance, also known as sodium hydroxide, which I suspect is what we call caustic soda. Caustic soda is available in supermarkets and hardware stores here in Victoria, usually in amongst drain cleaners and so on. Check with a hardware store owner or maybe a chemist to be sure sodium hydroxide and caustic soda are the same thing before you race off and buy some.

To the person who asked about making lye from wood ash. This used to be done by dripping water through the wood ash. The problem with this method is that the strength is not dependably consistent, therefore you could get one batch of soap that is perfect, but next time your soap could be so caustic that it would burn your skin off, no matter how long you'd cured the soap.

To Chris and Andrea of Dalwallini, and anyone else who is interested, a really good book on soapmaking is *The Complete Soapmaker, Tips, Techniques and Recipes for Luxurious Handmade Soaps*, by Norma Coney, a Sterling Lark book, published by the Sterling Publishing Co, 387 Park Avenue South, New York 10016. The Australian distributor is Capricorn Link, PO Box 6651, Baulkham Hills Business Centre, 2153. The book contains recipes for all kinds of soaps, including translucent soaps, shampoo, dog shampoo, hair rinses and liquid/gel soaps, to name a few.

Now for my addition to the **BUTTER/MARGARINE DISCUSSION** that seems to be going on. I've almost given up using either one, even on sandwiches and toast. On a salad sandwich I can spread nonfat cottage cheese onto the bread, otherwise I don't use anything. If I do feel the need to use something, I use a reduced fat butter like Country Gold Soft and Light (only 2.95 g fat per tsp instead of the usual 4 g), or Devondale Dairy Extra Soft at 2.5 g fat per tsp. The blend mentioned by Tom and Anick in GR 115 does not lower the fat content of butter as they claimed. How could it? Butter is 80% fat, canola oil is 100% fat so if you mix the two 50/50 you end up with 90% fat - 10% more than in butter alone. It does reduce cholesterol, as they said, but fat is fat, no matter where it comes from, and consumption really needs to be reduced for most of us.

Things are going well for us in some areas, not so well in others. The three boys are all well and doing quite well in school, I have already saved more money in the first half of this year than I had expected to save in the whole year, so I now have a small deposit for a block of land. I intend to wait for a while yet, though, not just rush into it. Jim's health is not good at present and is not likely to improve. He has developed cardiac myopathy and has been told the only treatment is a heart transplant, so we just have to wait and see what happens from here. In the meantime we just keep on going and doing what we can.

I've started two extra garden beds in the backyard. My main bed I covered in weeds and grass clippings then added lots of compost from the heap, plus I threw in all the household scraps and dog byproducts, then more grass and weeds and more scraps. It has now all broken down almost completely into lovely black soil. The other two beds started with a single bed feather quilt on the bottom covered by grass and weeds and an old towel and some newspapers covered in weeds and grass. Now I'm in the process of adding heaps of scraps to them so I can plant some extra herbs, fruit and vegies this year. Thanks for the great advice, Mary.

Vicki Judd,
59 Beresford Dve, BORONIA 3155.

Dear GR,

To Cathy Ffoulkes and anyone else with **COLD SORES**, I thought I'd just say don't rush out and have a smallpox injection because I had one when I came from England and still have the occasional cold sore. Someone told me 1) don't even touch it or it will spread and, 2) paint

with nail varnish which cuts off its oxygen supply. Seems to work (stings though). The earlier you get to it the better of course.

Sandra Binns,

PO Box 13, KINCUMBER 2251.

Thanks to all the readers who kindly shared advice and experience about cold sores, but please, no more on this topic.

Hello Everybody,

To all those who like to **MAKE THEIR OWN SOAP**: There is a book (American) called *The Natural Soap Book*, by Susan Miller Cavitch (Storey Publishing), price \$21.95. I picked mine up through Dymocks. I haven't tried any of the recipes yet but it takes you through the chemistry of soap making in plain English, what you need and how to package the soap.

Lucinda Eames,

39 Vintage Ave, HACKHAM 5163.



Contributors and correspondents who want letters or articles returned are requested to include correct postage.

Dear Readers,

I write this in the hope that the information may be useful for some **CFS SUFFERERS** and people with allergies or chemical overload. My allergies stem from use of chemicals, which has caused me to become allergic to certain foods. I have found the use of the pendulum very useful in determining what my body can and cannot tolerate.

The pendulum is a small weight suspended on a piece of string, chain etc, about 15-20 centimetres long, held between thumb and forefinger. To hold the pendulum in the correct position, suspend the weight allowing about five centimetres between weight and thumb.

You will need to establish which position means yes and which no. People vary in their responses. There are several ways the pendulum can go. It can oscillate to and fro, or gyrate clockwise or anticlockwise. These movements or combinations of movements provide the answers to questions posed by the dowser. In my case the pendulum swings clockwise for yes = yang, and to and fro for no = yin.

To establish which means what for you: hold the pendulum over a known copper coin. Ask the question, 'Is this made of copper?', watch what the pendulum does. After several repeats you arrive at a response which you can accept as yes. This then becomes the standard for yes. Then, if oranges are suspect in diet hold the pendulum over the fruit and ask the question, 'Is this orange suitable for me to eat?'

Books to read: *Divining*, by Christopher Bird; *The Pendulum Kit*, by Sig Lonegren.

Julie Kingston,

R503, BALLARAT 3352.

Dear GRs,

My family and I have just moved to south-east QLD. We have spent some years buying, renovating and selling houses, mainly in the country, with the aim of eventually having a freehold property (no mortgage). We left Townsville in March and spent quite a bit of time looking for cheap land suitable for a self-sufficient lifestyle. Having had a good look around we settled on **EMU VALE**. There is still cheap land here and it is very picturesque.

We are Born Again Christians and have a 12 month old baby boy plus grown up children, we home schooled for quite a few years and have successfully raised and milked goats. We are pro-life and anti-vaccination. We believe in homebirth and trust in Jesus as our healer. We would like contact with anyone of similar interests and offer help with any of the above.

Andrea & Geoff Dalgleish,

Daphe St, Emu Vale,
MS 548, WARWICK 4371.

FEEDBACK LINK-UP FEEDBACK

Dear GR,

Hubby and I are going to **BUS AROUND AUSTRALIA** mid-late '97. We are presently looking for a bus (which we will deck out ourselves). We would like to hear from any and everyone who has done the same, particularly the pros and cons of petrol/gas versus diesel. Do you have any back issues relating to the subject?

Dossee,
C/- 18 Union St, KEW 3101.

See the article 'Travelling With Gertie' in GR 114.



Dear Sir,

I live in PNG and as my family are all now in Queensland and NSW, I am making long-range plans to retire to Qld, probably the north. I have kept goats as pets so I know something about them.

I am an animal lover, and would certainly make a big effort to learn whatever I need to know about them. I have in mind trying to keep a few **ANGORA GOATS TO CLIP** for a small income.

I need to contact an association of angora/cashmere goat breeders/keepers, or anyone who has embarked on this hobby-business. I would not be able to afford the facilities for milking goats. I have read that feral goats can be bred with long haired varieties to produce animals that can be clipped, and are adapted to warm weather. I would be grateful for any information, publications, advice, or helpful hints to put me on the right road.

Ms V Benson,
PO Box 6473, Boroko, NCD,
PAPUA NEW GUINEA.

Dear Editor,

I am writing to you, with, some people might say, an unusual query. Are you aware of any veterinarians or other practitioners, that are practising any form of natural therapy or **ALTERNATIVE MEDICINE ON ANIMALS?**

Five years ago I began a search via letter writing, phone calls and personal visiting (where possible) to find out all I could about people who are treating animals with natural healing methods (this includes interstate and overseas). Any clues or advice I was given by any of these responses I acted upon with great determination. Unfortunately I gained very little information, though not for a lack of trying.

Over the years I have attempted to learn what I could about this new field of healing. It is a very slow process of finding any clues or leads to other training possibilities. Currently I am studying a Diploma of Natural Animal Care which is a stepping stone in a positive direction. I am also a veterinary nurse.

If anybody reading this letter has any information or advice on natural animal medicine, therapies, or courses in this field, I would be greatly interested in hearing from you. Or, if you wish to receive what little information I have gained I am willing to help you. Please write to me even if you think the information you have is not very helpful, any clues may lead me to a solid foundation to work on.

Renée Modra,
7 Gimbi St, INGLE FARM 5098.

Dear GR and Readers,

Thank you to all those kind people who wrote to me with help for my now four year old son Tyi who suffers badly from insect bites. I haven't got around to writing to you all yet, so thank you. Not long after sending that first letter I took him to a local herbalist and he was diagnosed as being low in vitamins A, D and E in his body. Therefore

the insects were attracted to him and he was allergic to them, causing infection due to scratching, which then didn't heal due to him being low in naturally healing vitamin E.

She prescribed him a mixture of herb extracts, which he took 15 drops three times a day in a little water, no problem, he's a gem with medicine! This was combined with a diet high in all orange vegetables and fruits including lentils, beans, and dried fruits, tinned fruits were also fine, vitamin A supplement tablets and 2.5 ml of cod liver oil at night. On the skin 100% lavender oil mixed to an apricot kernel carrier oil was the best. For the skin we used Rosa Scarless Healer, a very sticky cream good to apply on the spots only at night or when in long clothes. The herbalist supplied a cream called G A Cream, a soft white cream to apply twice a day all over. This helped the scarring immensely.

We also like to use aloe vera gel which I grow heaps of. This helped when the poor kid fell into the ashes of a fire, burning his hand, knee and foot. Minor burns that only required visits to hospital. A very painful experience. My heart goes out to all those who have suffered at this horrible experience. The scars are almost impossible to see now after only about four months. Bandaging overnight with sliced aloe vera leaves helped the skin heal amazingly quickly.

I hope the remedies that have healed and protected my son help those of you who also suffer. We just acquired a boxful of old GRs and other alternative mags and have found a whole lot of help. We can put so much to good use.

Does anybody use **FIMO CLAY** as a craft? I have some blocks that have been exposed to air for a while and crumble, it won't go pliable. Can this be fixed? It's too expensive to throw out.

Jodie, Rod and Tyi,
2/40 Blanch St, BOAT HARBOUR 2316.

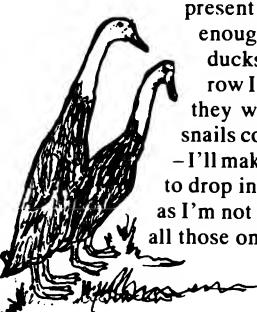
Dear GR,

It's a long time since I've written, but until now everything has been ticking along. Can anyone tell me please, how to **GET RID OF OXALIS?** It is through what I'm trying to turn into lawn, through shrubs, flowers, bulbs, you name it, there it is.

My cats are all very well, even my twenty-two year old is fighting fit. A couple of younger cats are getting cheeky towards him so he spends the night with me in my bedroom and during the day is the only cat allowed out back. Actually they are all allowed out the backyard if I can keep an eye on them – amazing how they can go over the wall! My bantams are doing very well though I'm getting no eggs at all at present as all the hens are sitting. Managed to save

enough to buy a pair of show quality Indian Runner ducks especially to annihilate snails. To my sorrow I don't have a fence in front – yet. Soon as I do they will live in the front garden which is where snails congregate. Next on my agenda is earthworms – I'll make my fortune yet! Any travellers are welcome to drop in for a shower and a cuppa, but please phone as I'm not at home all the time. Keep up the good work all those on the land.

Pat Lever,
77 Peninsula Rd, MAYLANDS 6051.
Ph: 09-371-0457.



Dear Grass Roots,

Could someone give me a suitable formula for **MAKING LIQUID SOAP?** I like liquid soap for the wash basin as it leaves no sloppy sludge as does ordinary cake soap.



Kerry Mannix,
4 Wilkinson Rd, MARTINSVILLE 2265.

FEEDBACK LINK-UP FEEDBACK

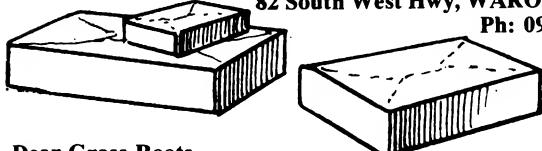
Dear Grass Roots,

Could you please send us information on books, magazines that we may be able to purchase on the **BUILDING OF FARM DAMS**. We have purchased a property in a small town called Nannup in the south of WA which has a soak of approximately two acres. We want to convert this into a dam, but don't know where to start or what to do. We have tried our library but the State Library has very limited information. Any information would be much appreciated, including information on building small cabins. My wife would like information regarding permaculture books and magazines as we want to get our land up to be environmentally friendly and this is all new to us. Will pay for any postage or handling fees if need be.

Bev & Jim Dickerson,

82 South West Hwy, WAROONA 6215.

Ph: 097-331-218.



Dear Grass Roots,

My wife and I run a fast food take away shop in Waroona, WA, and being a small country town we have no recycling depot. Nobody will come from nearby to collect our **CARDBOARD BOXES** as they say it's too costly for them. My wife came up with an idea to soak and compact the boxes into blocks and build a shed or house out of them. Having thought about it it seemed like a good idea, can you give us any information on whether anybody has tried this or if it is possible, and if so how do we go about it and what other products are needed: tools, jigs, cement products and so forth.

Beverley 7 James Dickerson,
82 South West Hwy, WAROONA 6215.
Ph: 097-331-218.

Dear Michelle and GR Readers,

From a fellow reader and Adelaide country neighbour I must write and express my deepest sympathy about the **LOSS OF YOUR CHOOKS** as described in GR 114. I cannot tell you how upset I was as you revealed to us the devastation not only in terms of injustice but in terms of bonding with dear little co-tenants of this wild planet.

I as a child took great comfort from my 20 or so layers after school when my parents were busy fighting over trivia in the kitchen. Any animal can make a wonderful friend, they ground us in our daily spinning lifestyle and refresh us with their uncomplicated affections and funny ways.

I urge you to reconsider taking action in your case against the dog. Many a dog catcher has ill advised people and they don't necessarily have any legal knowledge nor a great interest in seeing justice served. I recently suffered a loss when a city dweller visited my neighbour with his 'big hero's dog' (extension of the male ego) and it strayed into our field where children were playing. They approached my kids playing in their cubby with our 18 month old puppy King Charles Cavalier (little cute dog). The visiting dog proceeded to maul my seven year old son's dog, in front of my son. It bit through our dog's little chest into the heart and killed it.

Our devastation has been great indeed. My son needed counselling to come to terms with the helplessness he felt. (He actually attacked the intruding dog with a rock and stick and jumped on its back punching it.) I am lucky to have my son in one piece.

Through this violation of our right as a family I feel strongly that we must fight and not let other people influence us into defeat. You pay for your land, your home; it usually takes a good deal of our life's time to work and pay for our own haven, to rear our animals and children in a safe environment. What Michelle experienced was a total violation of basic human rights to live in peace and safety with animals and family. If they were horses or deer this matter I feel sure would have been recognised as a tragedy and therefore compensation offered.

In reality there is no difference. Your chickens were a financial investment, for breeding purposes, and therefore I strongly advise you to seek legal advice. There is a free phone service available in Adelaide that solicitors volunteer for: 205-0155.

Don't give in so easily, too often it is the good peaceable folk that are resigned to suffer their loss quietly. Stand tall and be heard and take comfort in knowing all peaceful, loving people from all walks of life support you. Speak to your local ombudsman, talk to your neighbours.

Sally,
PO Box 1166, BALHANNAH 5242.

Dear Grass Roots,

We live in the **LOCKYER/BRISBANE VALLEY** and would like to start a Permaculture Group, so if there are any interested people, please drop us a line. Also, I'm trying to get hold of the *Sourdough Cook Book*, by Jenny Wagner as it's now out of print.

Paul & Michelle Ward,
380 Manthey Rd, TARAMPA 4311.

Dear Mary,

Robyn Stewart GR 116. I would suggest you do not use Californian seed, these are poison. Potato and tree onions aren't allowed to be sent to WA at all under the Agriculture Act in that state.

Tracey Tewenski, your maggots are good for fishing if you live down by the sea, otherwise your maggots could be fruit fly maggots if you are in a fruit fly area.

If Cliff Nunn sends an SAE I can supply him with some beans.

Ros Otterman, cashew nuts (*Anacardium occidentale*) are kidney shaped seeds of a tropical American tree. Kernels are usually fried in butter or roasted, then salted and eaten as cocktail nuts. Cashew apples are red or yellow fruit of a 12 metre high Central American tree. Attached to the fruit is a hard lower kernel that contains the cashew nut. The soft fleshy cashew apple above the nut may be eaten or made into preserves. The shell around the nut contains an irritant and should be handled with gloves until it is roasted or removed.

L Cole, I suggest you use carpet squares and buy a special vacuum cleaner for asthma sufferers, because all you have suggested will hold plenty of dust. There's no insulation available for under the floor because dampness will get into your place under there. Use one of the Haymes floor varnishes or poly stains. But either way will need sanding down first.

Michael, re John Law's poem, *A Little Town*. Write to him C/- 2GB Radio Station, Sydney 2000. You may find he will oblige you from there.

Colin Franklin,
C/- PO Box 242, EUROA 3666.

Thinking of writing a Feedback letter?

• Our Feedback Link-up section is so popular it is uncommon for letters to go into the following issue, although we do our best to fast-track urgent requests. In many instances it will be appropriate to place a Grassified advertisement if you are in a hurry for a reply.

• Many readers request information that has already appeared in earlier issues of GR. Send for a back copies list if you think the information you require may already have been covered by GR (see order page for details). Your local library is also a wealth of information and may have a solution.

• Last but not least, please try and keep your letter to 100 words or less if you can.

FEEDBACK LINK-UP FEEDBACK

Dear Readers,

Here is a chemical-free way to get rid of **FLEAS IN CARPET**. I first tried the method several years ago, in a rental flat that we had recently moved in to. The previous owner had had cats in the flat and the carpets were riddled with fleas. One night I woke up at 2 am covered in flea bites. An idea dawned on me. I switched on the lights, got the iron out of the cupboard, and ironed the carpet. I ironed the whole carpet twice and three times in the 'hot spots'. After this we were never again bothered by fleas. Here are some suggestions. The steam button on the iron should be on. If you have synthetic carpets you may need to turn the temperature of your iron down. Try out the temperature setting in a little-used corner of your carpet. Do your carpet systematically and with smooth even strokes of the iron. One last piece of advice. Don't let your friends and neighbours see you doing it. You might get 'put away'.

Matt Foley,

1301 Rogan Bridge Rd, MYLNEFORD 2460.

Dear GRs,

Wanted – recipes using: **TAHINI, ANCHOVIES, PIPPIES, OR EEL**. Mullet – how to overcome the strong oily flavour. Some people say to soak overnight in milk. Others say to gut and scale the fish as soon as caught, Japanese style, not one scale left on the body as this promotes decay. That's OK if you catch the fish yourself, but fishermen and co-ops won't clean and gut cheap fish as it's not worth it to them (in Australia).

Has anyone found a use for recycled plastic lock rings from plastic drink bottles. There will be some obvious uses, I have used one on a piece of wooden dowel rod as a quick measuring stick. The ring will slide but stay where you want it.

Roberino,

Lot 4, ARRAWARRA BEACH 2456.

Hello to all GR Readers,

Firstly, thank you for your Feedback service as I have been able to obtain a trio of black Pekin chooks, but if there are any others we would love to hear from you as we are interested in getting a few bloodlines going.

Does anyone know anything about **CONVERTING AN AGA** coal driven stove to a wood or fuel driven stove? Any information would be appreciated.

R Brown,

15 Darlington St, DARLINGTON POINT 2706.

Ph: 069-684-593.

Dear GR,

I am interested in **SECESSION**, which means breaking away from the government and forming an independent nation. In WA there are two independent nations I know of – Hutt River Province in Geraldton, and Solaria down on the Nullabor Plain, near Eucla. I'm interested to know if there are any other seceded nations in Australia, and where they are and if there is an address I can write to any of them. I am 17, and if there is anyone my age or thereabouts interested in this, and communal style/alternative style living I would love to write to them.

Katy Rodgers,

6 Trumper Rd, MANNING 6152.

Dear Readers,

It seems anything one ever needs to know can always be found amongst GR readers! Can anyone provide me with a contact for the WA group/organisation that specialises in growing and rescuing rare **ENDANGERED NATIVE FLORA**?

Is it possible to get **BREWER'S YEAST**, free from additives? It was once difficult to combine with water, these days it instantly dissolves. What has been added? Is it difficult to make oneself? Does it deteriorate?

Any information on growing/processing/manufacturing **FLAX** and hemp under Australian conditions? Has anyone grown flax organically?

Patterns/recipes for making fibre shoes/sandals?

Is there a successful wheatgrass juicer available? Don't mention the Porkert!

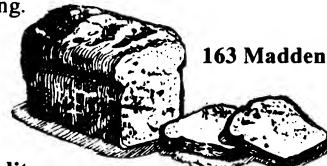
Does anyone know where to find natural **VEGETABLE BRISTLE SKIN BRUSHES**? My two recent purchases proved to be more than 50% synthetic content? One brush purchased from a well known health centre cost \$16 and was identical with the \$7.50 one from the local supermarket! Both were soft and useless for their intended purpose.

Ann Allen,
PO, GUYRA 2365.

Dear Megg and GR Folks:

Firstly, thank you for the enormous amount of mail I received since my last letter in Gr113. Your wonderful magazine goes to every state according to my mail. When I last wrote I had pneumonia and fluid on the lung, but I've had that removed. Now my husband has suffered a stroke and has lost his voice, but I accept the challenges, although it is very frustrating for both of us. When you are sick you find out where your friends live. As my husband can't drive at present, friends and neighbours mow the lawn, take us shopping, to speech therapy, church, also post my books for me etc. Yes, the world is full of wonderful people.

During the cold nights I have knitted 14 pairs of slippers, 2 cot covers with a knitted-in angel on them, 4 jumpers for my great grand children, 2 jumpers for my son, 1 jumper for myself with 3 knitted roses on the front, and last night finished a gollywog. I love giving things away. Besides this, I write a hint column in the local paper each week and have done since 1971. I also answer letters from people who have problems, and have a talk-back now and then on radio. Recently I was on Midday with Kerri Anne. It is marvellous what one can achieve in a day, besides the usual bread making, preserving, drying vegetables, jam, gardening, demonstrating craft from waste material to groups. The list is endless. So dear friends I am still in the land of the living.



Marjorie Bligh,
163 Madden St, DEVONPORT 7310.

Dear Editor,

My husband and I would like to thank all concerned for the wonderful surprise you have sent us. It is just what we needed. We have just started getting GR magazine. It was a gift to us from the most wonderful lady I have ever known in my whole life. Her name is Mrs Jean Menzies of Tasmania. Jean was my guardian angel and neighbour for four years. Unfortunately, we have moved to WA and I am far away, only in person, not in spirit. Thank you once again for the magazine and the excellent reading GR provides.

Shirley & Vic Paradzill,
22B Elvira St, MIDLAND 6056.

Dear GR Readers,

I was a little concerned re the article 'Herbs and Horses', GR 117. Most if it was quite good, but I question the wisdom of dandelions begin fed to horses. Dandelions can cause a nasty disease called **STRINGHALT**. You sometimes see horses suffering from it around ACT in paddocks full of dandelions. A horse developing stringhalt from dandelions should recover with time when the cause is removed. Capeweed, also common near ACT, can also cause problems.

To Roberino re **EGGS**; try the float test. Place eggs in a bowl of water, if they sink they're fresh and if they float they're off.

Allen Hunt re **GAS FRIDGES**; I was advised not to open mine too often, apparently that does affect them badly. Freeze ice overnight and use that to cool down drinks in flasks.

Christopher re **GREY WATER AND SEPTICS**; if you do put a septic in, most places around here have a pump to pump the grey water from a holding tank onto the garden.

Caroline,
C/- PO Box 242 EUROA 3666.

FEEDBACK LINK-UP FEEDBACK

Dear Grass Rooters,

I was pleased to see some public discussion about **GENETICALLY TRANSFORMED VIRUSES** and bacteria in your excellent magazine. Unfortunately, someone hasn't got the facts straight. Genetically transformed organisms had nothing to do with the disease (equine morbillivirus) that killed one man and several horses in Queensland, or whatever it was that killed huge numbers of pilchards off the southern coast last year. The rabbit calicivirus is a perfectly 'natural' virus that has been found in Europe for centuries. These are quarantine questions; investigating genetic engineering will do nothing to solve them.

Like all technology, genetic engineering can be used to help or to harm. It is probably the only feasible and humane solution to many of Australia's worst ecological problems: rubber vines, foxes, Undaria, European fruit flies, etc. Obviously it can be misused to make things worse, just like anything else. But if we rely on prejudices and don't look at the facts, we aren't going to be able to redress the terrible wrongs we have done to the unique Australian environment.

Brendan Carson,
9A Woodburn Ave,
HAWTHORNDENE 5051.

Dear GR Readers,

There's a lot of ways to increase the worm population in our gardens. Good organic management is the first step before all else. Feed the soil. Compost, which hopefully has a healthy worm population, will also be added to your garden, but the miracle worker is **LUCERNE HAY** used as a mulch. The vegetables love it, the roses love it, and you just about need crowd control with the worms. You don't have to buy \$10 a bale lucerne hay. You'll often find second grade or bales that have sat in the paddock for a while and turned brown. It's still green inside. It's beneficial around fruit trees, natives and herbs too.

This year I am going to grow even 'giant' Giant Buschell gourds, plus I've had a few good tips from someone who seems to have all the gen on giants. Seeds from last years Giant gourds are available now if anyone would like some. Six seeds for 4 x 45c stamps, plus SAE. Please don't forget SAE.

Wilma Flintstone,
MS 582, Mt Luke Rd, GEHAM 4352.

To GR Readers,

We are writing to ask if anyone can help with a way to **GET RID OF ANTS**, both inside the house and outside in the lawns and gardens. Inside the house they have invaded the pot plants and don't just go for the food. They have been found in the electric kettle, which only has water in it. Outside in the lawns, the mounds they leave make it hard to mow and difficult for my son to push his wheelchair over. For some reason the areas the ants are most active are where the four-stroke push mower is used. There is virtually no disturbance where the tractor and slasher are used.

In the garden they thrive under the rocks and where we put newspapers down to control the weeds seems like it must be their heaven. They are in the pots we have outside as well.

We have three dogs, two of which have their nose in the lawn quite often so solutions need to be pet friendly and safe. Hoping someone can help please, as we are sick of the ants.

Hawkins Family,
PO Box 20, STOKERS SIDING 2484.

Dear GRs,

Anyone wishing to contact me regarding **INFORMATION ABOUT ALLERGIES**, please note that I have moved since my last letter was published. Please contact me at my new address if you need advice about relevant reading material.

Dianne King,
RMB 1268, SWANPOOL 3673.
Ph: 057-682-528.

Dear GR and Readers,

I am hoping that someone may be able to help me with some **SKIN CARE RECIPES** made from excess goats' milk. I would love a recipe for shampoo and conditioner and a gentle vegetable oil soap.

For any people like myself who looked doubtfully at **HOME-MADE TOOTHPASTE** recipes, give them a go. Clean white teeth and a clean bill of dental health from my dentist was the only confirmation I needed. Plain bicarb is sufficient, but this recipe is particularly good: 15 g dried powdered sage leaves, 10 g dried powdered peppermint leaves, 25 g bicarb soda. Mix ingredients well and apply to wet toothbrush. There are other simple and effective recipes in Jackie French's *Household Self-Sufficiency Book*.

Donna Mulvenna,
74 Stafford Rd,
NUMINBAH VALLEY 4211.

Letters are accepted and edited at the discretion of the publishers.

Hi,

Can someone please tell me all about **BREEDING CHICKENS** – the old-fashioned way. I have one pet hen and a friend has a rooster so: How long does a hen have to be with the rooster? How long is she fertile? How long can the eggs be left in the nest? Will she definitely get broody (she's about 16 months old)? Also does anyone in/near Brisbane have bantams for sale?



Lyn Cargill,
2 Willoughby Cres,
SPRINGWOOD 4127.

Dear Megg, Mary and all GRs,

ROSEMARY SHAMPOO: Stimulates the scalp, prevents dandruff and promotes hair growth. In a small pan, put 2 handfuls of soapwort and add 1 1/2 cups of water. Bring to the boil and simmer for 10 minutes. Cook and leave to cool, then strain into a bottle which has a screw cap or secure stopper. Put 2 1/2 tablespoons of chopped fresh rosemary leaves in a bowl and add a cup of boiling water. Leave to infuse for 20 minutes, cool and strain into the bottle. Shake vigorously before shampooing. Use within four to five days.

If growing your own **SOAPWORT** please remember that it has invasive roots, grow it in the ground and it will go mad and take over.

Ken & Edna Hamilton-Brown,
27 Alice St, BELLEVUE 6056.

Dear GR Readers,

Just a short note as a follow-up to the article on electric fencing by Tony Zammit in the August/September issue.

I was surprised at his alternative to purchasing a tester, the back of my hand would be the last place I'd **TEST AN ELECTRIC FENCE!** Our family has always used a very simple method of testing, without having to purchase a tester. A long piece of fresh green grass, a single blade, held on the wire/tape allows you to feel the pulsing without the direct skin contact. The closer you have your fingers to the wire the stronger the pulse. This also picks up any shortages occurring. The grass pulses on one side of a short but not the other. Hope this info is of use to some, if you're not in a drought!

Robyn.

Dear Readers,

I am collecting stories of **HEALING EXPERIENCES**. If you feel you have had a healing experience that was important, I would love to hear from you. I will reply to all letters.

Melody James,
1/8 Reverie St, BENDIGO 3550.
Email: hansm@bendigo.net.au

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

If anyone has had a negative experience regarding payment of **RATES AND TAXES** to the Rural Land Protection Boards, for no discernable service in return, please contact me as I am organising a class action regarding this issue.

R Snesby,
13 Arrawarra Beach Rd,
ARRAWARRA BEACH 2456.

Dear Grass Roots,

What are we doing wrong? For months we have advertised our lovely **SOLAR POWERED HOUSE TO RENT**, specifying 'environmentally aware tenants'. In response we've had people wanting to bring their Alsations, Rottwielers and cats to this wildlife refuge, people booked to come to see the place who simply don't turn up, and people who 'want to rent' who are unable to pay the bond or two weeks' rent in advance. In short, a succession of totally unsuitable people.

We've lived on our bush property for seven years, since coming to Australia from the United Arab Emirates where we were working and where I became ill as a result of irrational and excessive treatment with antibiotics by doctors. I was very ill and on arrival in Australia was found to have a damaged liver.

The time spent living surrounded by the peace and timelessness of nature has been one of healing and learning. As we have built our home, evolving from bush showers and holes in the ground to cook in, to our present modern amenities, so my values and priorities have evolved too, taking me even further from the Western 'civilisation' with its consumerism and materialism, and moving me closer to a kinder, gentler, way of life.

In this vein, with my veterinary background, I became a wildlife carer and I have now realised that the sort of people we need are those who would be willing and enthusiastic about continuing this role, someone I could train and confidently leave in charge when I move. This is a special place, one that provides habitat for many species of wildlife, including the rare Glossy Black cockatoo.

We are also considering planting olives next year, as our climate and temperatures are ideal. So please, if there is anyone out there who is genuine and ready to make the change to a more peaceful life, do get in touch.

Liz Hansen,
Ph: 076-682-171, or, 079-466-411.

Dear GR Readers,

After ongoing problems with the council regarding a disputed rates debt I find myself, and the two adult invalid pensioners I care for, IN NEED OF A HOME. We have two cars and two caravans and would be very grateful if someone could offer us a paddock with water, rent free, to camp in.

I suffer from the heat of the plains, so would be hopeless in hot climates, ie 30° or more. I am a Christian meat eating Sabbath keeper, a university graduate and also have a Teacher's Certificate in home science and needlework, biology and genetics and zoology. I do not drink or smoke and have been a widow for 20 years. I can do building, care for goats and chooks and love gardening. Can anyone please help?

Florence Vorhauer,
19 Wilburtree St, TAMWORTH 2340.
Ph: 067-621-437.



Hello Everyone,

I am Anni Edge, and I NEED SOME NEW FRIENDS, so I figured the best thing to do is write to 'my Grass Roots family'. I am married, but lonely, and now is the time to do something about it. We have had a very hard two years with a few setbacks, and I find myself between a rock, and a hard place, with a big knot inside. Trying not to be

negative, but finding it hard to find anything positive. I used to have lots of interests, and am trying to get involved in these again.

My age is 53, a young 53. I enjoy music – country to the classics, I'm adventurous, am going mad here in suburbia, yet can't get my husband to move to country life, also find solace in my garden, but wish my garden were on acreage.

Anyone, male or female, out there who has the recipe for a comfortable life without too much trauma, please write to me. Hi to long lost friends – Paul, are you still on boat? Vivienne and Peter Green where are you? Lorraine from Gunalda – where art thou? Please write to me.

Anni Edge,
19 Pauline Cres, MACGREGOR 2615.
Ph: 06-255-2878.



Dear GRs,

After reading Wendy Seabrook's article in GR 118, I was concerned that she did not point out that **PRIVET HAS POISONOUS PROPERTIES**. I presume the goats were not lactating, because it can on occasion kill caprine kids, and has come very near to doing the same to human kids. I liked the article because it shows what can be done, so many letters to GR seem to have a mental block when it comes to getting on and doing things.

Privet (and, incidentally, lilac) does not poison the animal directly but it does poison the milk. I suspect wisteria of having similar problems, it certainly does not do goat kids any good, and adults seem to eat it without trouble.

Pat Coleby,
91 Church St, MALDON 3463.

Dear Mary,

I read with some disquiet in the latest issue of GR (118) a letter from a Mr George Read, concerning the **TYING OF WIRE IN A FENCE**. The style of tying or joining that he condemned is in fact the correct and the safest way to tie wire in a fence. Let me explain why and why his method is dangerous. The reason that wire is tied with interjoining loops is that it will give the wire no course to slip or break and today's wire is heavily galvanised so that rust is not a problem until many years down the track; in fact the knot would outlive Mr Read before it succumbed to the rust. The knot is also the only and safest way to tie off the strain when using the most common type of wire strainer, the Hayes brand of wire strainer. Mr Read's is an old farmer's method of tying soft gauge wire like number eight, even then the figure eight knot was the most common and safest knot for soft gauge wire and the figure eight knot also incorporates intertwining loops. Mr Read's method is dangerous as the tie or knot would not hold a great strain and is totally unsuitable to use with the high tensile wires that are used on most fences these days. The idea of Mr Read's knot is that as the wires take up the strain the loose ties on each side of the wire will pull in, tightening as they go, but once you strain past that point the tie will start to unravel and that point of strain with this type of join really isn't enough for any decent length of fence, especially if there is any pressure from stock. As I said earlier, this type of join really is just an old farmer's quick-fix for a broken wire.

The loop method has been in use for many years since the use of high tensile wires and number eight joins and the like are unsuitable to be used on the high tensile wires. Loop joins are also approved by the Government for use in their fences and are in fact part of their standards. Mr Read's join is fine for fences around the house yard or for vegie patches, but not for fences with great pressure over the normal 100 metre strain. Eyes can be easily taken out by joins like this so please be careful.

Tony Haines,
36 Woollum Cres, RIVETT 2611.

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

This is my first letter, from a warped weaver and **FIRM FELTER**. Wool has been my bread for 20 years. No you are not able to make a fortune out of it, but can oil a few wheels and help clothe self and humble abode. Why more people in this wool laden country don't use it I'll never know. One can turn the daggliest fleece into a felt rug, and country folk know you cannot kill a homespun jumper, no matter how hard you try.

For the simplest of looms you only need a solid old picture frame, string wound around it for warp and unspun washed fleece laid in for weft to create squares that can become cushions and rugs when joined together. The old-fashioned drop spindle will get you started on making yarn (even a potato on a stick will do). The nobblier the better for character. Even a child can make felt. What child doesn't like playing with soap and water? Add wool and you've got felt.

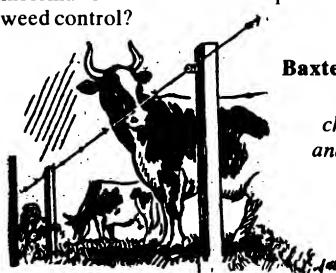
Perhaps you don't produce wool. It's cheaply bought at the local wool store. Our wool store sells coloured fleece for \$1 per kilo, it's my belief that's the all-time bargain. Would like to pass my knowledge on to some woolly, warped, like-minded souls.

**Doreen Atkinson,
97 Bay Rd, MT GAMBIER 5290.**

Dear Grass Roots,

My name is Mario. My wife Kathleen and I will be making the move to the country within eighteen months. We have a 6½ acre property with cottage in the highlands south of Bathurst NSW. We look forward to becoming as self-sufficient as possible. I was hoping that a reader may have had the experience of **CHOOSING A HOUSE COW**. What breed was chosen, best method in buying etc? Any information would be appreciated.

Also I have read some articles on keeping **GOATS FOR WEED CONTROL**. The articles were very vague. Would anyone have any information that would be helpful as I don't want to use any sprays for weed control?



**Mario Gnocchi,
Baxter Ave, SPRINGWOOD 2777.**

GR 86 had an article about choosing a breed of house cow and GR 89 describes using goats instead of herbicides.

Dear Grass Roots,

I am hoping someone will be able to give me some information on using rosellas (the fruit, of course). I love rosella jam and I have grown some bushes, but I didn't know at what stage to pick the fruit – while still green, with red cases, or after the cases turn brown? How do you prepare the fruit for jam making? Do you just use the fruit or the cases as well? I have found the odd recipe for **ROSELLA JAM** but none say how to prepare the fruit. I would be very grateful if anyone could give me some tips. Also, does anyone have any tips on how to tell when jam is ready to set? I've made several different sorts on the stove and in the microwave and I can never get it to set properly, even using commercial jam setter and regardless of how long I boil it. I've tried the 'drop on a cool saucer' technique and it never wrinkles! Personally, I don't mind if my jam is runny, but I like to give it for gifts so I'd be grateful if anyone can offer some jam setting tips as well.

**Melissa Digby,
PO Box 628, MALANDA 4885.**

Dear GR,

Does anyone know a good alternative to **TOOTHPASTE**? I've searched all the toothpastes' packagings only to find an 'active ingredient' declaration, with no mention of the obvious peppermint and possibly sugar. Now, I've always been told that the absolute worst thing for tooth enamel is peppermint. So why are so many

toothpastes peppermint tasting? When staying on holidays at a relative's house I was pressed to use their cure-all salt on a toothbrush to clean my teeth. I suppose you could get used to it eventually, but I never did. I've heard of some people using peroxide too, but don't fancy the smell, but I suppose at least your teeth would be white.

Roberino,

Lot 4, ARRAWARRA BEACH 2456

Dear GRs,

As a member of a **LANDCARE GROUP** I worry a great deal about plants that are being used as food for humans, garden pretties and animal fodder. Quite a few of these are becoming, or have become, serious threats to our native flora and I would like to see articles on this subject and substitutes to these plants. I know this is a big area, but I feel if people know what they are planting could be pesky, at least they can make an informed choice.

Denis Irons,

M/S 956 Balmoral Rd, MONTVILLE 4560.

'Pest' plants will differ widely from area to area. Perhaps concerned planters should consult their local Department of Conservation or similar authority..



Readers should be aware that it is illegal to promote or be involved in 'pyramid' type chain letter schemes which claim massive incomes from a modest outlay. The maximum penalty under the Fair Trading Act is \$10,000. If you have been bothered by such letters contact the Office of Fair Trading, otherwise light the fire with them.

Dear GRs,

I first became aware of GR around 1979-80. I attended a talk given by Bill Mollison when he visited Esperance about that time. Esperance was fairly remote so that people who stayed there tended to live independent lives and be alert for interesting visitors. Quite a few people went to hear Bill speak. For a time there were group gatherings to exchange information and learn more about aspects of permaculture and organic food production. Since then my gardening has been towards **EDIBLE PLANTS** with no use of chemicals or artificial fertilisers.

After fourteen years in Esperance we moved in 1988 to Busselton on the lower west coast. In this more urban and settled environment I have enjoyed the challenge of working with setting up a seed business, packeting and distributing home-raised organically grown nonhybrid varieties of vegetables, herbs and flowers. This grew from the very small beginning of giving seeds to friends, then using recycled envelopes to sell seed at fifty cents a packet. Finally the business name was registered in May 1991. At that stage the stock list offered thirty varieties of vegetables. These were sold at local markets.

The first packets with the Bay Seed Garden label were sold through LETS trading at Margaret River. As demand through that outlet grew I was confident enough to take displays to other venues. At present twenty-five outlets stock the seeds which are processed in my home. Recently the spare bedroom has been converted to storage and distribution. We also provide a mail order service.

Penny Coulson,

Bay Seed Garden,

PO Box 1164, BUSSELTON 6280.

Letters are accepted and edited at the discretion of the publishers.

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

I came across a letter from Karen Maker in an old GR about CHRONIC FATIGUE and ME. I have suffered from this nightmare illness since 1991, so has my daughter since 1992. The illness is still much ignored and the doctors don't seem to know much about it. In the meantime one has to prove that one is really ill. It is a very frustrating and difficult illness, but with trial and error I have learned to cope with chronic fatigue and ME well enough that I was able to ride 32 kilometres on my bike to the next town. I didn't feel so good when I came back but I felt exhilarated that I could do it and I am 64 years of age.

Anyway, I might give a few hints for some readers with the same problem. Never give up hope, your body can do it, the body is a remarkable machine. With chronic fatigue and ME the body is temporarily confused; all the messages from the brain to the body are mixed up, and everyone knows how the body has to be finely tuned to work 100%!

Every morning when I wake up I thank the Master for giving me another day and thank him for my night's sleep. First thing in the morning I have some hot water with 2½ mg Swedish Bitters for my digestion, sometimes also I take two teaspoons of slippery elm powder. Then I have brown rice with raw goat's milk for breakfast, plus some dates and pawpaw and sunflower seeds. That's a really good brekky for ME sufferers; it gives one strength for a couple of hours.

The rest of my daily diet is mostly steamed vegetables (raw is not advisable, the digestion is not 100%), eggs occasionally and fish, no meat. I have a slantboard, on which I spend 20 minutes a day to feed the brain.

Does anyone know an address in Tasmania where I can work during the hot tropical Queensland summer? I'd like to take my daughter there to escape the heat.

**Mrs W Quaedvlieg,
1A Webb St, MARGATE 4019.**

Anonymous letters will not be published. Please indicate if you would like personal details to be withheld.

Dear Friends,

I am writing to seek assistance on how to COOK SCARLET RUNNER BEANS. Our 'crop' is now yielded and dried, sitting in a jar looking very pretty. I have searched through all my cook books without success; any recipes would be greatly appreciated.

With regard to recent correspondence on CAT LITTER. We buy 20 kilogram bags of lucerne-based pellets called 'Pussy's Place' from our local Mitre 10 store. This product works well to absorb cat urine and excrement odours and a 20 kilogram bag lasts for at least six months. (Costs around \$15 a bag.) Once used, the litter is spread around our garden, breaking down with rain/watering and leaves no unsightly residue as with clay litter. We are informed from the bag that Pussy's Place is 'Australian made', 'Australian owned' and 'made from 100% natural ingredients'; manufactured by Barastock Stockfeeds P/L, Mooroopna 3629, Vic. The empty bags are useful as recycling bags, or for cutting up for plant guards.

I am LOOKING FOR A BOOK by E V Timms titled *Time And Chance*. I understand this is the last of 12 in *The Great South Land* saga, and it will complete my collection.

**J F Schmidt,
2 George St, MOUNT GAMBIER 5290.**

Dear GR,

I was delighted to read a letter in GR 116 from a family who wanted to share their property with a family from the city, the only catch was they were from Queensland! We are a family with one child aged four years. Work commitments necessitate us living in the metropolitan area. We are looking for the opportunity to BUILD/RENOVATE/

PARK A CARAVAN on some land within two hours drive of Fremantle. Our skills include trained animal care and building and maintenance, we also like to dig holes to plant trees and generally enjoy the outdoors. If you think that you may be able to help us and we could help you please phone for a chat.

**Kathy Anketell & Simon Walker,
White Gum Cottage, 91 Wood St,
WHITE GUM VALLEY 6162.
Ph: 09-336-2131.**

Dear Megg, Mary & Our GR Family,

Hi one and all, thank you for a great mag which helps to keep my sanity here in the big smoke until I get back to the bush. Looking to buy a 20-30 acre block, somewhere between BUNDABERG AND THE WHITSUNDAY ISLANDS to Bowen.

I am in my 50s and looking to live as self-sufficient a life as possible in my retirement. I come from the Northern Territory originally, where my parents walked off a property because of drought.

Would love to hear from anyone in the nominated area about land, or just as pen friends with a view to meeting in the future.

I am a jack of all trades so useful to persons who need welding (oxy or arc), mechanics, engineering, building, etc in exchange for whatever.

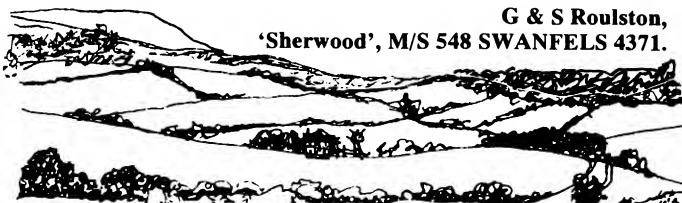
**James Williams,
PO Box 189, ST PAULS 2031.**

Dear GR,

We are in the process of planning an ENERGY EFFICIENT HOUSE we intend to build ourselves. We would be very interested to hear of any GR readers who have some do's and don'ts that they would like to share with us, as experience is always the best teacher.

We are also looking forward to becoming much more self-sufficient on our newly acquired land. After hearing with alarm and dismay of the new VRE virus and that they suspect it may be linked with additives in stock feed, we will be actively scanning GR tips and advice for all help to get away from additives in food for our children's sake.

**G & S Roulston,
'Sherwood', M/S 548 SWANFELS 4371.**



Dear GR,

I'm writing in hope of information to find SOMEWHERE TO CALL HOME. Are there any readers who can give some idea where that place could be? In the country, with work opportunities and down-to-earth people. I would greatly appreciate any replies.

**Jenny Edmonds,
3 Lloyd St, MURTOA 3390.**

Dear Readers,

Has anyone developed ALLERGIES TO ANTIBIOTICS due to exposure to these medications at their work? I am a 42 year old registered nurse who has worked in public hospitals for 23 years. In March 1994 I started to experience symptoms as a result of occupational contact with antibiotics. Over the following year I developed serious allergies which made it necessary for me to leave work.

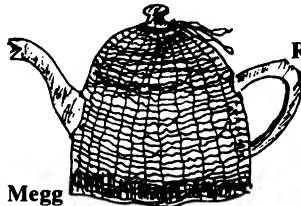
As a result of these allergies I also have food sensitivities and a widespread eczema. Have any other nurses developed allergies to antibiotics through contact with them at their work? Do you have any associated health problems? I would like to bring this problem to the attention of the Department of Health, although I will need information from other nurses to support my argument that a safe handling policy for antibiotics is needed to protect nurses from the development of occupationally acquired allergies to antibiotics.

Kathy Williams,

FEEDBACK LINK-UP FEEDBACK

Dear GR Readers,

I am hoping some GR folk may have some patterns, sewing, knitting or crocheting, for the **OLD-FASHIONED TEA COSY**. I'm trying to get as many varied types, from the weird and wacky to the practical, for a display that I'm trying to put together. I will photocopy and return pattern to sender if requested.



Sandra Tobin,
114 Port Stephens St,
RAYMOND TERRACE 2324.



Dear Megg

If there is anyone interested in reducing waste in their lives and local community, information regarding **EARTH WORKS** is now available through your local council or community college. Earth Works is a volunteer group that operates through the Environment Protection Authority.

Earth Workers have been taught how to: reduce waste by shopping wisely; compost - no more smelly, gluggy heaps; run worm farms - worms are great pets, they eat our vegie scraps and return nutritious castings to use on our gardens, they don't require exercising, grooming or visits to the vet, extremely quiet and co-operative; make liquid fertiliser from wonderful weeds; and construct no-dig gardens which use less water and have less weeds. So hop in and have a go - we can make a difference to our beautiful planet.

For information about Earth Works contact your local council.

Jill Overton.

Dear Grass Roots,

Can any of the readers tell me of an **INSPIRING HIGH SCHOOL** (or learning system at that level) that teaches kids: to think for themselves, of alternatives in all sorts of areas (health, farming, etc), to resist subliminal conditioning, that develops kids at their own pace, level and interest areas, that treats them as individuals and tries to bring out the best in them, that is not just a sausage machine producing unthinking clones to fill niches in our ultimately unworkable society.

I have a son who has been doing School of Distance Education, which is probably the best of a state system, as one can have some control of content and pace (to a degree).

However, although he has been doing well, he doesn't seem very inspired by school work and does everything he can to avoid it. Since he has to stick with it for at least three more years (hopefully he'll be inspired to go on), it would be good to find a learning system that will excite and inspire him to achieve his full potential.

Sandi Feller,
4 Ascham St, RAVENSHOE 4872.

Dear GR,

For people in the **CALOUNDRA, MAROOCHYDOR** area of the **SUNSHINE COAST**, Queensland. Did you know we now have our own **LETS** system? LETS (local employment trading system) is a system of exchanging skills and services within the community without the use of dollars. This system is most useful for the unemployed, sole parents or the elderly. You can have those long-neglected jobs done around the home and discover new skills you may not have realised you had. If you're interested call: Kathryn 074-781-536, or Anne 074-447-520, or send an SAE to:

Hobby Trading,
Kathryn Spencer,
PO Box 428 MOOLOOLABA 4557.

Dear Geoff,

Re your letter to GR about your ant problem. An old timer's method to **GET RID OF AN ANT NEST** was to cover it with a chaff bag or some similar material and keep it wet with grey water, urine, anything wet. I suspect this upset the air circulation or humidity control inside

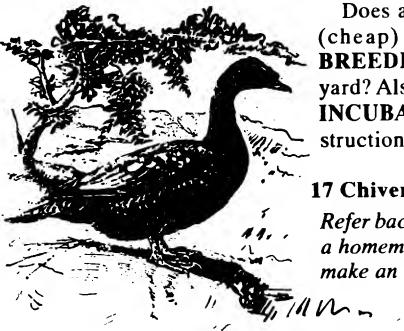
the nest. It may even have encouraged fungus or mould growth which would have adversely affected the hatching of their eggs. It's worth a try, if you have enough water.

I would like to buy a farm up **BALLINA** way some day. Would appreciate any advice.

Kel Connell,
PO Box 71, EAST GOSFORD 2250.

Dear GR,

I have a large number of **SCARLET RUNNER BEANS** (also called 7 year beans because they develop a 'tuber' which shoots again each spring). These grow very well in cooler climates and can be planted from early spring to midsummer. Any GR reader who desires some seed, send me an SAE.



Does any reader know of suitable (cheap) books on keeping and **BREEDING DUCKS** in the backyard? Also, does anyone have a cheap **INCUBATOR** for sale or have instructions on how to make one?

D L Burgess,
17 Chivers Close, LITHGOW 2790.

Refer back to GR 57 for information on a homemade incubator and on how to make an incubator for under \$40.

Dear GR Readers,

My Husband and I are thinking of moving from Melbourne to the **SINGLETON/MAITLAND** area of NSW and hopefully to a better climate. We would like to hear from people in that area about employment prospects, cost of housing and land, schools etc. Also could they give us a rundown on the summer and winter months.

Linda & Erich Mazur,
17 Agora Boulevard,
FERNTREE GULLY 3156.

Dear GR Muddies,

I have a **MUD BRICK HOME** which has been constructed from crudely made mud bricks. The previous owner has sealed the bricks (I suspect) with a brown tinted Bondcrete and unfortunately it's like living in a vat of cooking chocolate, but without the taste or smell.

I want to retain the 'rustic' uneven walls, but finish them with a surface that can be tinted a lighter colour. I have thought of a cement render finish (or rough plaster finish) over chicken wire, but fixing into the face of these mud bricks isn't very secure. One room was also painted by the previous owner and the result isn't an option that I'd consider. I'd appreciate hearing from anyone who has successfully changed the internal surfaces of mud brick and yet retained the mud brick feel.

Susan Debrun
Chaplins Rd, RSD MALDON 3463.

Dear GR Readers,

Hello to you all. I love the way the people who read this wonderful magazine are always willing to help each other out and share their knowledge and friendship. I have had a bit of a rough time the last few months and feel I need to pull myself out of the gloom that threatens to engulf me every now and again. I was wondering if anyone has some information they can share on their **PERSONAL EXPERIENCE WITH TM**. I am interested in meditation but it seems a lot of money to pay for a course without actually talking to other people who have learnt it. I would really appreciate it if anyone has anything they would be willing to share with me regarding this. Thanks every one of the generous people who contribute to GR in any way.

Dianne,
C/- PO Box 242, EUROA 3666.

FEEDBACK LINK-UP FEEDBACK

Dear GR and Folk,

We are a couple, Sonia and Wayne, with three children: Shay (7), Tyrone (6) and Taya (1). At present we are living in Geraldton WA. We are originally from Qld. We travelled across in search of work here in WA when baby was born. We have itchy feet again and have just purchased another bus (we had one four years ago but never got to travel in it) to take us the rest of the way around Oz.

On our way across we had a bit of a holiday, this time we will be looking for work. We can turn our hands to anything but we are interested in hearing from anybody who can tell us about **SEASONAL WORK** fruit picking. I'm also quite keen to hear from anybody about home schooling or correspondence for Shay and Tyrone.

Our dream (plan) is to travel until we find our little piece of earth to settle on then become as self-sufficient as we can. I'm also trying to locate an old friend, Cathy Sutherland, whose maiden name was Jarrett. Last I knew she was living in Campbelltown NSW. I would love to hear from her.

Sonia Poole,
PO Box 3339, BLUFF POINT 6530.

Dear GR Readers,

I have one **GRANADILLA VINE** which is about 2½ years old. When I planted it I had no idea how it would grow or what the fruit was like, but this year it has approximately 90 fruit on it weighing about two kilograms each. The weight of the fruit has broken down the trellis. I have been told to use the flesh as I would for apple pies or in a fruit salad. Apart from that, do any readers have any recipes that they would pass on to me using granadilla? I have given some to neighbours and friends but they don't know what to do with them either.

Ann Dedman,
PO Box 551, GLADSTONE 4680.
Ph: 079-736-750.

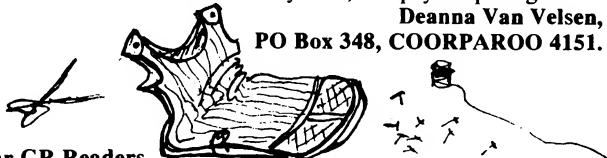
GR 112 has an article about granadillas which includes recipes for baked granadilla and granadilla pie.

Dear GR,

I enjoyed the article about cooking with a pressure cooker in a recent issue of GR. I bought a **PRESSURE COOKER** last year, and although it cost a lot initially it has been worth every cent. I haven't found it to be dangerous as long as you follow the instructions to the letter. What many GR readers might not realise is, that not only does the pressure cooker cook very quickly, it makes very tough meat (eg chuck) so tender it melts in your mouth, and it keeps all of the flavour in the food so that you need hardly any flavourings. I have never before made such tender and flavoursome stews and soups with such cheap meat!

I have been trying to obtain **ENID GILCHRIST PATTERN** books for women's household articles (called 'Pinnies and Things') and for boys over 6 years. I would be happy to buy these books from anyone who doesn't need them anymore, and pay for postage.

Deanna Van Velsen,
PO Box 348, COOPAROO 4151.



Dear GR Readers,

At the moment we live at Quakers Hill, NSW. In January '97 we will be moving to South Australia due to my husband's work. I am seeking information on Tai chi and permaculture groups. The area we will be living in is between **ELIZABETH AND TEA TREE GULLY**. I would like to hear from like-minded people from these areas, as I have never lived anywhere other than NSW. This move will be away from family and friends and I am keen to meet people who appreciate our planet and care for it and enjoy the alternative way of life.

Megan Bent,
3 Priscilla Pl, QUAKERS HILL 2763.

Dear Friends,

We are organic gardeners and would love to hear from all you wonderful **HOMEBIRTHERS**, pagans, anyone living in unison with the great mother earth, and from people successfully schooling their kids at home. Also I would like to find a dear friend I met up in north Queensland last year, her name is Tara and she has a daughter Jade, where are you woman? I miss your intellectual conversation.

Does anyone have information on **POTTERY IN THE BUSH**, using natural glazes and firing in a bush kiln? It would be greatly appreciated.

Jodie Mottershead,
24 Males Drive, TARA 4421.

Dear GR Technicians,

I would like to share some information on **LOW VOLTAGE POWER**. There is some worthwhile information on battery rejuvenation floating around, but it's usually difficult to find. I am sure that if collated it would help those, like myself, who find the cost of deep cycle batteries not a worthwhile proposition. Ordinary 12-volt car batteries are a good substitute, provided they are not discharged below a certain level, and many of these are available just for the asking.

There are a number of little trade tricks that the battery factories like to keep to themselves. I can pass on a few of these tips to anyone who may be interested in reviving an ailing wet cell or resurrecting a few old car batteries to a new ease of life.

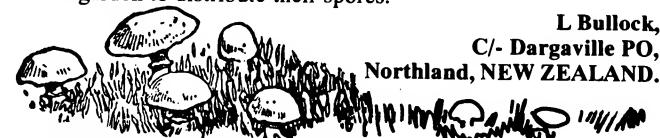
If only there was a better battery. Best of luck to all those who must spend many hours wet-nursing these leaden monstrosities.

John Lee,
5 Thomas St, MILTON 2538.

Dear GR,

We have found that **CASSETTES** can be sent airmail, without the plastic case, at letter rate. I wrap them in newspaper clippings for padding. It is handy to swap music and talk.

I bury all garden waste in the garden, so composting occurs under the growing plants. Last year I bunged in some mushroom spawn and subsequently had **MUSHROOMS** coming up in the garden all winter. A friend kept some mushrooms on a plate for a few days and the brown spores came out on the plate. She washed the plate in the garden and later mushrooms came up there. I leave some mushrooms in the garden to distribute their spores.



L Bullock,
C/- Dargaville PO,
Northland, NEW ZEALAND.

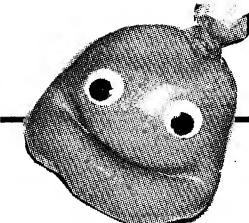
Dear Megg, Mary and the Gang,

I like your new format very much. Only trouble is, I keep forgetting you've changed and go looking for the old format. I really enjoyed the articles in GR 116, especially Susan Hands', Ian & Sara McGowen's lovely home and Josie Robinson's idea for old calendars. During the war my Mum used to stick the pictures on cardboard and then cut them into various shapes for jigsaws, to keep the kids amused. Loved the candlewicking article too, as I am just completing a nice pair of candlewick cushion covers which I bought a few years ago.

I'm not sure where I read the query, but a few months ago a lady was enquiring as to where she could buy **AFGHAN CROCHET HOOKS**. Well I found them in June in a wool shop in Auckland NZ, and if anyone who would like one will send me an SAE, I'll be happy to send them the address.

I recently came across two **STAMP EXCHANGE CLUBS** and if any of the philatelists among you would like to send me an SAE I'll be happy to send you details.

Shirley Svensson,
516 Musgrave Rd, COOPERS PLAINS 4108.



KIDS PAGE

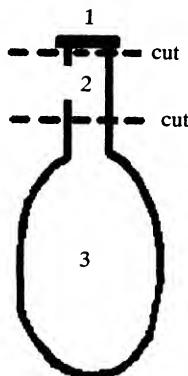
MAKE A BALLOONIAN

Hi, I'm a balloonian.

I love to be played with indoors and especially in the car, where I can be lots of fun as I don't make a mess. I'm easy to make and you can mould me into any shape you like, just watch out for sharp objects – ouch! – they can break my skin and cause me to dry out.

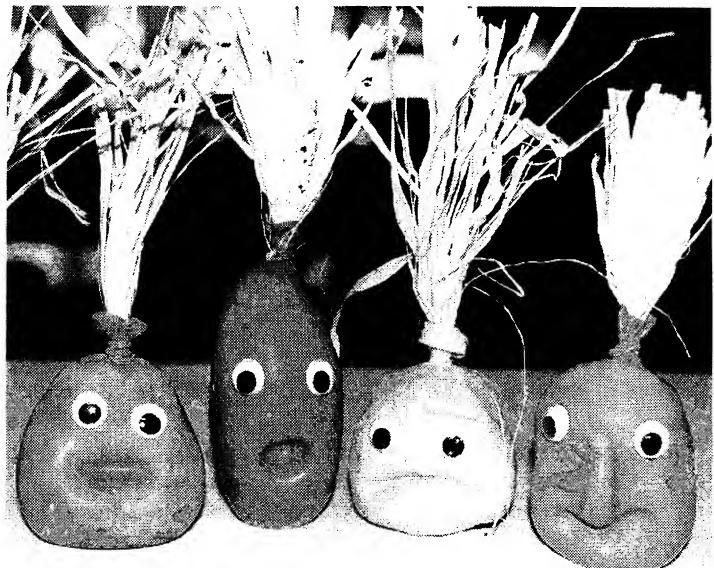
To make me you will need:

- 1 balloon
- some clay
- glue
- straw for hair
- plastic eyes



How To Make

1. The first step is to cut the balloon into three pieces, as shown in the diagram.
2. Take piece number 3 and gently fill with the clay to desired size.
3. Next push your finger into the top of the clay in the balloon and make a hole into which you then push the straw.
4. Now take piece number 1 and use a rubber band to seal the top of the Balloonian around the straw.
5. A strong glue such as Quick grip will ensure that the eyes stay glued on.



COOKERY CORNER

When fire restrictions have been lifted in your area, it is fun to have a meal outdoors, cooked over a campfire.

Make sure there are adults helping, and be especially careful that younger children don't get too close to the fire.

Damper

- 2 cups flour
- 1 tsp bicarb soda
- 1 tsp cream of tartar
- pinch of salt
- enough water to make a stiff dough



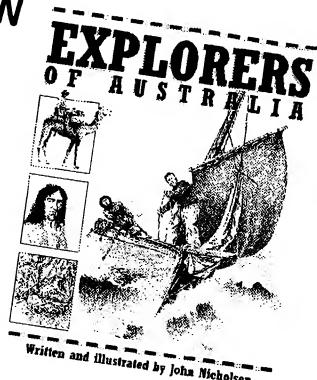
Slowly add water to dry ingredients to make a stiff dough.

If you accidentally add too much water, just add a little more flour. Wrap dough in foil and cook in the hot ashes for an hour. Or mould it around one end of the long stick and cook it over the coals.

BOOK REVIEW

EXPLORERS OF AUSTRALIA
by John Nicholson

From the Aboriginal inhabitants who made the trip from South-East Asia, to early European explorers who had sailed vast distances in unreliable (by our standards) ships and braved the hazards of the unpredictable seas, to those who explored the coastline and the uncharted interior of the continent, Australia's early explorers were people of great courage. This book tells the stories of adventurers such as Captain Cook, Matthew Flinders, Ludwig Leichhardt, Burke and Wills, and many others, whose explorations



were important to the early (European) history of Australia. The stories are retold in modern language and make exciting, as well as educational, reading for middle to upper primary levels. They are well illustrated with colour sketches and maps.

Published by Allen & Unwin, RRP \$19.95.

Chocolate Bananas

- 1 ripe banana per person
- chocolate pieces



Peel back a strip of banana skin and push some pieces of chocolate into the banana. Cover with the skin you peeled back and cook over the coals until chocolate is melted and deliciously gooey. Yum!



WHILE THE BILLY BOILS

An Easy Meal With Robin And Greg

by Robin Jean, Braidwood, NSW.

Our cooking tends to be a no-nonsense affair and although simple, doesn't ever seem to be the same twice in a row. Three of us cook on a regular basis and we all make exactly the same dishes differently. The mainstay of these meals are savoury pastries called *empanadas*. The following is a fairly typical evening meal and one that we eat at least once a week, mostly on Saturdays.

PASTRY

We use the pastry recipe from a Spanish recipe book. The following amount is a basic mix. Double or triple the amount to produce enough for the evening meal for the hungry hordes plus a few leftovers for lunch.

300 g plain flour (wholemeal or white)

50 g butter or olive oil or a mix of the two

enough lukewarm water to make a nice consistency

Tip the flour into a bowl. Mix in the oil or rub the butter in with your fingertips. Then mix in the water until the pastry is a nice stiff consistency. Give it a good knead in some extra flour sprinkled on the bench top.

At this point there are three ways to deal with the pastry.

- First you can just form little balls 3-4 cm in diameter, roll them out into a circular shape 15-20 cm in diameter, add the filling to one side of the circle of pastry, apply a little water around the edge, close the other half as a lid across the filling and press down, place them onto a baking tray and place them in the oven at about 220°C. Cook them until they are nicely brownish. It doesn't take long at this temperature.

- Or you can leave the pastry in the fridge for 24 hours then follow the above course of action. By leaving the pastry for a while you will find when you cook it that it has a rather nice tendency to puff up and flake.

- The third way to treat the pastry is to make the pastries and then to deep fry the result in olive oil. Although this produces a slightly more greasy product, the pastry flakes well and the empanadas can be really, really yummy.

FILLINGS

Two tins of fish – tuna or Australian salmon whichever you prefer. 450 gram tins are perfect. You can also choose

fish in brine or in spring water. We prefer spring water because then we can add the water around the fish into the pan and save all that fishy flavour. But if you use salty fish some of the water needs to be drained off so that the final filling is not too salty.

3 or 4 largish tomatoes (or a couple of spoons of triple concentrated tomato paste)

1 capsicum

4 onions

6 stalks parsley

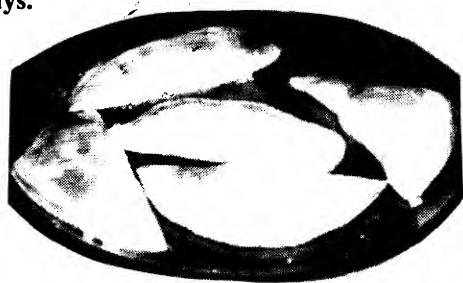
1 tsp pepper

salt, if using fish in spring water
a smidgeon of oil for frying

Chop up the onion and fry it in the oil in a pan. Add the fish and mangle it a bit. If using salmon mash the bones – they are a good source of calcium. Then add chopped tomato (or paste), chopped capsicum and parsley and the teaspoon of pepper. Add salt if necessary. Cook lightly. Make sure that the mix is wet, but with very little free liquid sloshing about. The more liquid the filling, the harder it is to keep it in the pastry case. Also, although the liquid when strained off and drunk by itself is truly delicious, it is also nice to keep the flavours in the empanadas for later.

MORE FILLINGS

If, like us, you just happen to like pastry concoctions, then the above pastry can be used with a variety of fillings. We often cook our leftovers this way. The pastry wrapped around a scarce leftover can sometimes stretch it just far enough for the four of us. We use curry and rice or Bolognese style tomato sauce and pasta in pastry as regular fillings. Another really great thing to do for lunch is to stuff a heap of cheese into the pastry cases, cook them in the oven and call them *cheese things*. These can of course be spiced up using a few herbs such as oregano and thyme. Even including some salami and tomato doesn't go amiss.



This could be considered a wood stove nongriller family equivalent of cheese on toast. Although these are our own invention, we have seen Italian ravioli recipes that are very similar.

DESSERT FILLINGS

For dessert use a filling of slices of apples, pears or bananas with a piece of butter, sugar if that takes your fancy, and a tiny sprinkle of cinnamon. The fruit does not need to be cooked before being added to the pastry case. Or if you feel like being really disgusting you can just smear some soft butter onto the pastry and sprinkle it with brown sugar.

Finally you can make some *ricotta cheese things*. You will need:

500 grams ricotta cheese

1 cup sultanas

2 bantam or one larger egg

Place ricotta, eggs and sultanas into a bowl and mix. You need a nicely stiff mix that doesn't run uncontrollably all over the place. Obviously you can add sugar but the result might be a bit on the sweet side. Dollop the ricotta mix on the rolled out pastry. Close up and bake.

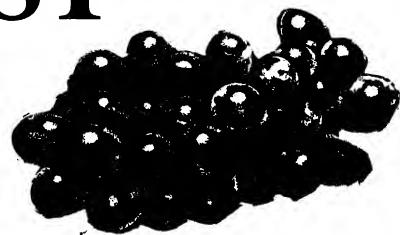
SALAD

The above foods have the carbohydrate and protein part of the main course as well as the dessert fixed. This still leaves vegetables for the vitamins and minerals.

Basically we eat raw salad with every meal made up from whatever fresh, colourful veggies are in season. When we go visiting and are served cooked vegetables our kids call it 'cooked salad' and look askance at it.

THE RIGHT YEAST FOR THE JOB

by John Walters, WA.



The dictionary definition for yeast is 'a living substance that bakers put into dough to make it rise'. It is also used in the production of wine, beer and other alcoholic beverages. Yeast is a fungi, a living plant, of which there are over 6000 types, however, only a few of these are used commercially for making wines and beers and fewer still for the production of amateur wines and beers.

In order to survive, yeast needs sugar and since the yeast cells have no chlorophyll, they cannot produce it themselves so they need to have the sugar supplied from alternative sources. This can be cane sugar or beet sugar, which we have plenty of and which can be used together with yeast in making our wines and beers at home.

WHAT IT DOES

Yeast combines with sugar to produce several substances, the main ones that concern us are alcohol and carbon dioxide (CO_2) a gas which is lighter than air. When the yeast is added to the must (that is the mixture of your ingredients before the fermentation process starts) it reacts with the sugar to produce enzymes. These are called fermentations and the process of producing the gas and alcohol is called fermentation. The CO_2 is allowed to escape through an airlock.

When the yeast cells have done their work they combine with debris of the material being used, become heavier and drop to the bottom of the container, forming the lees (sediment). The wine must not be left too long on the lees and the reasons for this I will explain in a future article which will be called 'Clearing The Wine'. At a certain stage the fermentation stops because the yeast has reached what is referred to as its alcohol tolerance. This is when the yeast has produced so much alcohol that the alcohol itself kills off the remaining live yeast cells.

CHOOSE THE RIGHT YEAST

I have been making my own wine since the mid '50s and I have seen the progression of yeast production improve so that it has now reached a very sophisticated stage. I never use a general purpose yeast, which can be purchased in a plastic screw cap container, because in my opinion the constant opening of this container can lead to a possible deterioration of the contents. I always buy my yeast in sachets and have recently found a yeast made in England by a company called Gervin. These yeasts are without any doubt the best I have used since I started amateur brewing. They should always be used in accordance with the instructions on the sachet and remember to check the 'best before' date before using. Gervin yeasts have a shelflife of 18 months.

Different recipes require different yeasts and while I can give you a fairly broad outline here, this becomes a matter of experiment for each individual. I have found 10 varieties of yeast which can be used for wine making and three which can be used for beer making, all available from Gervin. These are qual-

Style of Wine	Recommended Yeasts
Dry White Table	1, 5, D, E
Medium White Table	B
Sweet White Table	3, C, E, FF
White Dessert	3, C, E
Dry Red Table	2, A, D, FF
Aperitif	1, 2, C, E
Sparkling wines	3, C
Social Wine (white)	1, B
Red Dessert (port)	3, C, E
Social Wine (red)	1, FF

ity yeasts and probably cost a little more than some others on the market, but they are produced by professionals for use in the amateur field. I think it is worth remembering that the use of quality yeast produces a quality wine. They should be obtainable from your local home-brew store.

John Walters is the author of '*Cheers!! Home Made Wines and Home Brewed Beers*', reviewed in GR 117 and available for \$18.50 incl p&p. He can also supply yeast, etc. Any queries can be addressed to: J Walters, 6 McLeod St, ALBANY 6330. An SAE will get an immediate reply.

Previous wine making articles in GR are: GR 98 – Three Basic Home Wines, GR 101 – Fruit Wines, GR 102 – Vegetable Wines, and GR 103 – Flower and Herb Wines. See explanation of Gervin Wine Yeasts page 18 this issue.

Ingredient	Recommended Yeasts
Apple	B, C, E
Apricot	3
Banana	3
Blackberry	2, A, FF
Cape Gooseberry	1, E
Lillypilly	1
Mulberry	2, A, FF
Orange	13
Peach	5
Pineapple	3
Plum	2, FF
Raspberry	3
Rhubarb	D
Tamarillo	B
Flower	1, E
Grain	1, D
Honey	1, D
Vegetable	1, D

OLD-FASHIONED REMEDIES

by J E Mount, Woodford, Qld.

Have you ever had the need for a flour and water poultice, a grated soap poultice or a raw potato poultice? Can you remember the very sharp pain of a minor burn and then experiencing the almost miraculous sudden relief as strong cold tea was applied to the burn? Or perhaps you can recall the time you had a painful boil in a sensitive area of your anatomy and the relief that was felt when the boil was literally 'drawn' out by a heated milk bottle or beer bottle?

For many folk, especially the baby boomers and those who resided in country areas, the answer to the above would have to be a resounding yes. Not for them a five-minute drive to the nearest doctor or medical centre. In many cases a trip to the local medico would have been a costly long-distance venture, not forgetting the added expense of doctors' fees and medication.

Old-fashioned health remedies and cures are presently enjoying a revival as people become more health conscious. Many people too, are probably looking

for a lot more than medical science has to offer.

For indigestion my parents always drank a glass of warm to hot water and received immediate relief, or scraped the 'charcoal' from a slice of very burnt toast into a teaspoon and ate this (my father reminding me that the gasmasks of the two world wars used charcoal as filters).

For open wounds not requiring stitches, bathing the wound with hot salt water and afterwards exposing to full sunlight, was always insisted upon (nowadays the germ-killing properties of direct sunlight are well known). Moreover the wound was, whenever possible, left unbandaged as it was felt that wounds healed better and faster if left uncovered and exposed to the air.

The reader is probably wondering if I advocate relying only on old remedies or alternative medicine. To this I say definitely not! To not take advantage of the technological marvels of modern medicine, especially in life-threatening



situations, would be foolish indeed. This is not to say that the old cures and remedies don't have a place in this modern world.

Whenever I feel a cold or sniffle coming on I always chew a small piece of garlic or quaff a lemon drink or two; with an earache I will roll a piece of white onion or garlic clove the size of a matchhead in a piece of cottonwool and insert it just inside the ear. In fact, I think I can feel a toothache coming on right at this moment, now, where did I put the oil of cloves?

Recommended Reading

For more detailed articles on old-fashioned home remedies see GRs 93 & 94.

Living Better For Less, Night Owl Publishers, PO Box 242, Euroa 3666. \$9.95 posted.

Treasury Of Home Remedies, by Myra Cameron, published by Simon & Schuster.

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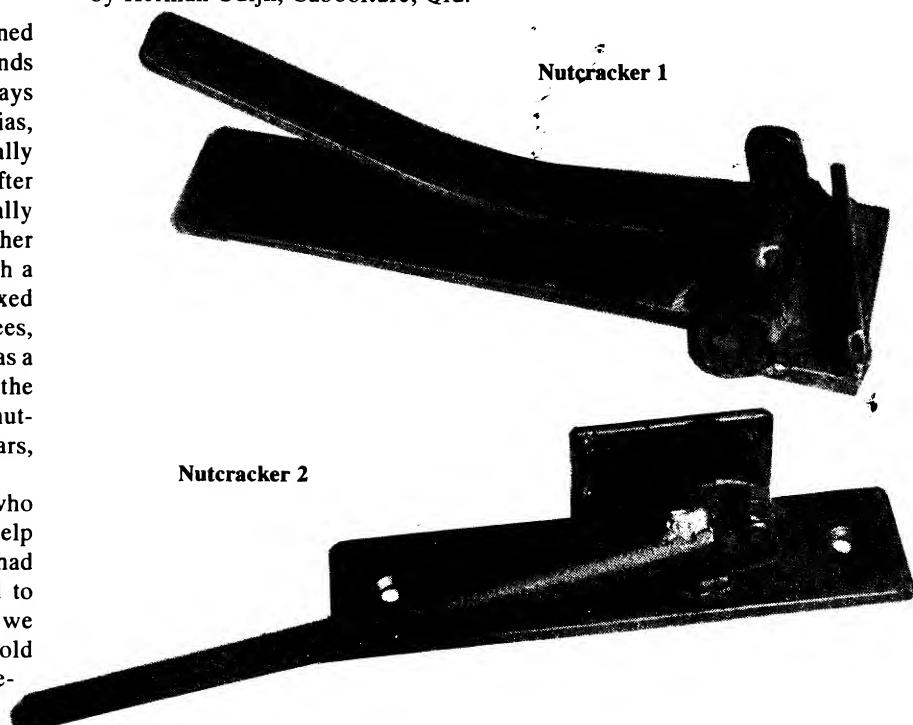
TWO NUTCRACKERS TO MAKE FOR CRACKING MACADAMIAS

by Herman Odijk, Caboolture, Qld.

Most nutcrackers have been designed for soft-shelled nuts such as almonds and walnuts, but they are nearly always useless when it comes to macadamias, for the shells of these are exceptionally hard. We know this only too well after having broken several commercially made nutcrackers designed for other kinds of nuts. This provided us with a dilemma as we had just bought a mixed orchard which contained over 350 trees, predominantly macadamias. So it was a choice of the 'hammer and a hole in the cement system', or a commercial nutcracker which cost thousands of dollars, until . . .

A local electrician, Jim Byers (who was wiring our house), offered to help out. He showed us a nutcracker he had made for himself and then offered to make something similar for us if we provided the metal. We found some old metal plate which was eventually recycled – welded into an excellent nutcracker for the price of \$60 and a copy of one of my books for his time and trouble. Heavy duty steel may be found on old tractors or other discarded farm machinery. For example, tractor slashing/balancing bars are made from heavy duty hardened steel and these bars are excellent bits of steel for the purpose. Alternatively, look around for bits of steel at your local wrecking place. I am sure you will find something useful at a bargain price. Or, if you have neither old farm machinery nor a wrecker in the town nearby, ask an engineering business for offcuts, you may be able to buy these for a few dollars.

Additionally, to make the nutcracker you need a welding machine and plenty of patience. So far, Nutcracker 1 has cracked several tonnes of macadamias for us. Its only drawback has been that over the next couple of years, our nut trees grew bigger and better nuts and many of them were soon too big to fit the nutcracker! So we were back to the 'hammer and a hole in the cement' system for them until another friend, 82 year-old Lance Lye, thought long and hard about it and came up with another design – Nutcracker 2. It was also welded from



some scrap metal and it has also now cracked several tonnes of macadamias for us.

News of our nutcrackers has spread far and wide and there are constant phone calls enquiring about them as well as people coming to see them so they can make something similar for themselves. I am happy to share this information with other GR readers.

I wish you happy nutting and tonnes of fun!

NUTCRACKER 1

Procedure

- (1) Cut out base plate, 230 x 50 x 10 mm.
- (2) Cut out front of base plate, 50 x 80 x 10 mm.
- (3) Weld (2) to (1), see figure A.
- (4) Cut out front buffer plate, 25 x 75 x 10 mm.
- (5) Weld (4) to (2), see figure B.

Figure A

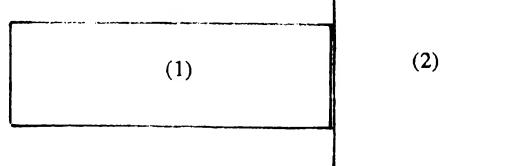
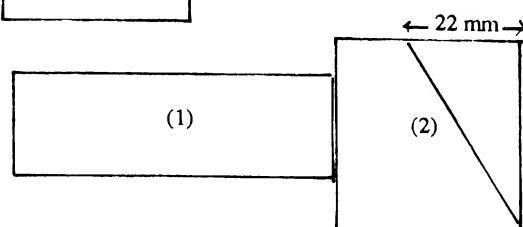


Figure B



(6) Cut out two handle support plates, 20 x 35 x 10 mm.

(7) Drill a hole 10 mm diameter 5 mm from the top and 5 mm from the side of the support plate, see figure C.

Figure C

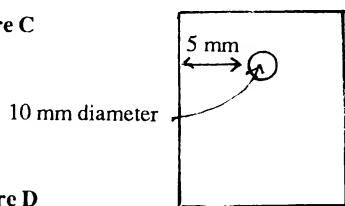
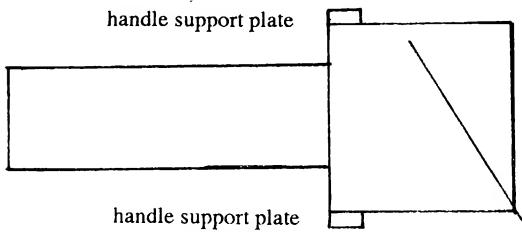


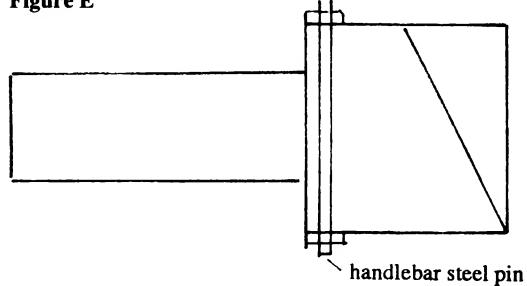
Figure D



(8) Weld (6) to (2), see figure D.

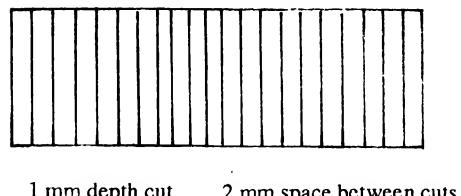
(9) Insert handlebar steel pin, 9 mm diameter x 90 mm, into handle support plate holes, see figure E.

Figure E



(10) Cut out handle press bar, 15 x 73 x 20 mm, and make cuts on one side only of 1 mm deep spaced at 2 mm (this assists in keeping the nut in place), see figure F.

Figure F

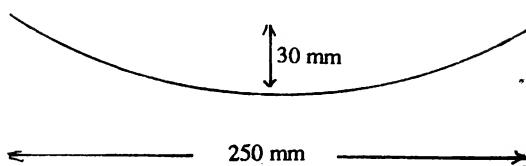


(11) Weld (10) to (9) so that cuts face front buffer plate and top of the handle press bar is flush with top of the steel pin (see photograph).

(12) Cut out handle, 250 x 25 x 10 mm, and bend (see photograph and figure G).

This prevents the knuckles on your hand being hit when pressing the handle down. Note: bending is done by heating the steel first.

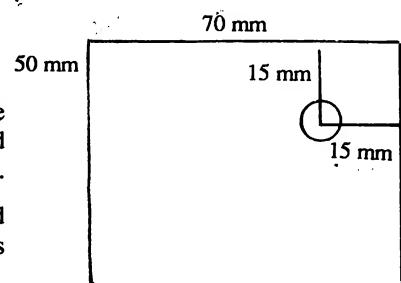
Figure G



(5) Drill two holes in the base plate at each end so that the nutcracker can be fitted to a benchtop or piece of timber if you wish. However, the nutcracker can also be used as a portable tool. Drill hole size to fit screws of your choice.

(6) Drill an 8 mm diameter hole in the top right-hand corner of the handle support plate, see figure B.

Figure B



(13) Weld (12) in the middle to the top of the handle press bar and handlebar steel pin, see photograph.

(14) Smooth all rough edges and you have a nutcracker which does the job!

To operate the nutcracker, lift up the handlebar, insert the nut, hold the nut in place with one hand and push down the handlebar with the other hand.

NUTCRACKER 2

Procedure

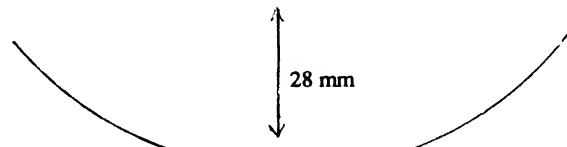
(1) Cut out base plate, 200 x 50 x 4 mm.

(2) Cut out handle support plate, 50 x 70 x 4 mm.

(3) Cut out buffer plate, 120 x 25 x 4 mm.

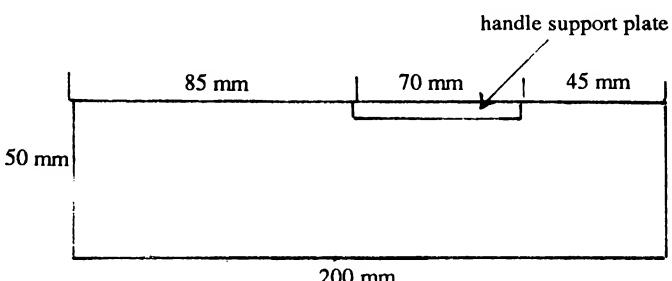
(4) Bend buffer plate to an angle as shown in figure A.

Figure A



(10) Weld the handle support plate to the base plate, see figure D.

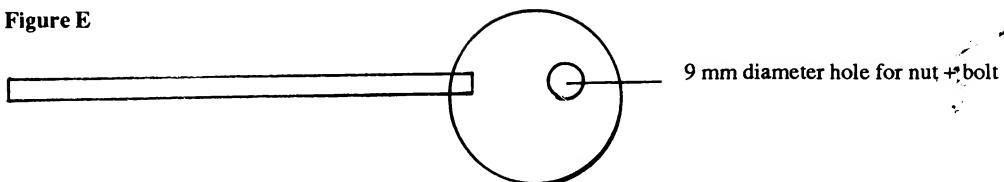
Figure D



Note: Weld the handle support plate to the base plate so that the hole in the handle support plate is on the top right-hand corner, thus facing to the right 45 mm from the front of the base plate.

(11) Weld the handlebar to the handle press cylinder directly opposite the 9 mm diameter hole, see figure E.

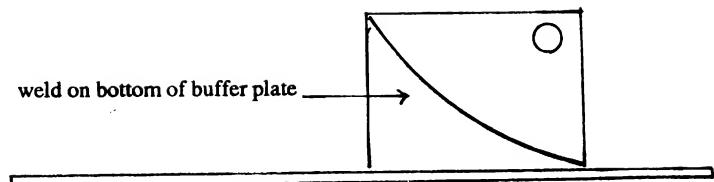
Figure E



(12) Weld and bend buffer plate to the handle support plate and the base plate, see figure F.

(13) Attach the handlebar and handle press cylinder with the 50 x 7 mm bolt and nut. Weld the head of the bolt to the handle support plate so that it can no longer turn around. That is,

Figure F



9 mm diameter hole for nut + bolt

insert the bolt through the hole in the handle support plate, then through the handle press cylinder and weld the bolt head to the handle support plate.

To operate the nutcracker, lift up the handlebar, insert a nut and push the handlebar down. Lift the handlebar up again and take the cracked nut out.

‘GRASS ROOTS’ AWARDS

We know our readers are a special group of people, their achievements are many and their talents diverse. In recognition of these quiet achievers we are continuing the initiative we began last year, the Annual *Grass Roots* Awards, and calling for nominations in the following categories:

- **Lifestyle** – a person, family or group whose lifestyle most closely reflects *Grass Roots* self-sufficiency.
- **Good Samaritan** – a person who you know goes out of their way to help others in a variety of ways. The Feedback pages contain many examples.
- **Innovation** – a person who has invented or produced something which aids or advances a self-sufficient lifestyle.
- **Community Service** – a person active in the community in the promotion of self-sufficiency and environmental care.

The prize for each category is a Going Solar gift voucher to the value of \$200. Nominations will be published in each issue of GR. Voting details will be provided later in the year and the awards will be announced in the Dec '97 - Jan '98 issue.

CONDITIONS

Nominees must be persons you have read about in, or contacted through, *Grass Roots* magazine. You may nominate one person per category, per issue, but, it is not necessary to nominate a person in each category.

Include your own name, address and phone number and that of any person(s) you are nominating.



Nomination Form (cut or copy)

I (name, address & ph).....
.....

wish to nominate the following person(s) for the Annual *Grass Roots* Awards. Include name and all known contact details, and a brief reason for your nominees.

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Category:.....

.....

Send to: ‘GR Awards’, PO Box 242, EUROA 3666.

TIPS TO A PEST-FREE GARDEN

by J E Mount, Woodford, Qld.

Pests are a curse to every gardener, but armed with a few ideas and practising constant observation you can prevent the trauma of watching your garden slowly being devoured by hordes of very hungry free-loading insect pests. The following points will assist in attaining a pest-free garden.

- Make a habit of examining in detail all the plants in the garden. The occasional discoloured and curled-up leaf could herald the beginnings of a disease or a major insect pest onslaught. Pull these leaves off and burn them.
- The first line of defence is the strong spray stream from a garden hose. Many pests knocked from a plant will not return.
- Before purchasing the latest you-beat-knock-em-out insect chemical sprays, consider for a moment the benefits of natural insect control.

When you spray a commercial insecticide the outcome can be disastrous to the gardeners' friends – those insects that prey on the real villains in the garden. This spraying of a general insecti-

cide can be likened to what is known as 'the shotgun effect' where both friend and foe alike perish, achieving only a very short and temporary halt to the pests' activities while freeing them of their natural predators.

Natural sprays can be homemade to order. Try for example the following recipe for a repellent garlic spray:

Mix one grated garlic bulb, two crushed chillies, and two crushed onions. Add enough water to cover the mix and allow to steep for 24 hours. Strain off and add to the liquid extract enough water to make a total of two litres of spray. This spray is nonspecific (as most are) and will repel beneficial insects as well as pests, so only use when pests are present in sufficient numbers to be causing problems.

- One of the most effective of all predacious insects is the tiny lady beetle, also known as the ladybird and ladybug. Its staple diet consists of aphids, mealybugs, whiteflies, spidermites, larvae, and scales. Another insect friend is the lacewing whose offspring, the ant lions

or doodlebugs, will munch on moth eggs, mites, caterpillars, scale insects, thrips, aphids, mealybugs and whiteflies. Despite its ferocious and threatening appearance the praying mantis is another insect beneficial to the gardener. It is a pure insectivore, preying on aphids, beetles, caterpillars, flies, locusts and many other pests. If these insect predators are not in your garden they can usually be purchased by mail order.

- Companion planting is another excellent method of repelling insect pests. Onions and garlic, for example, planted near roses and most vegies will repel aphids and many other pests.

Recommended Reading

GRs 108 and 109 contain articles on holistic garden pest control.

A-Z Of Companion Planting, Pamela Allardice, Angus & Robertson.

Natural Control of Garden Pests, Jackie French, Aird Books.

The Good Bug Book, a comprehensive reference to all the beneficial mites and insects commercially available in Australia. Available from: Bio-Protection P/L, PO Box 35, Warwick 4370. \$25 incl postage.

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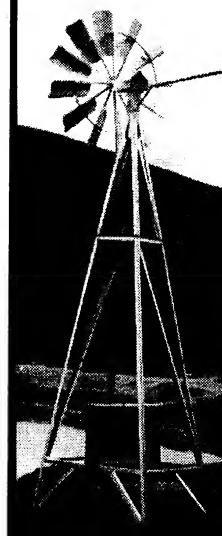
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RAISING THE WALLS

by Susan Hands, Innisfail, Qld.

In my previous two articles I described the purchase of our two acres and the planning stages for our dwelling. Now we are ready to begin to build.

Step one was, of course, to submit our plans to the council. For your plans to pass council, you must have a builder to sign or become an owner builder yourself. There is usually a course for owner builders at your local TAFE or through correspondence.

With plans in hand, we set out to measure up and mark out where our steel poles would go. Have you ever noticed how small a house looks when marked out on the ground? And when you are building the smallest home legally possible . . .

'Ah,' I said, looking at the chalk lines. 'Final revenge, I see.'

Howard frowned.

'Well obviously there won't be enough room for you, me, Warren and my mother and father when they come to visit.'

'True,' returned Howard with a half smile. 'Very true.'

Once I was talking to him again he explained that he would work out the steel needed and make an order Monday. Meanwhile there were twenty-five holes to be dug and one and a half days left in which to dig them. He was wrong. (He is sometimes, even he will admit to that.) It took us the rest of that weekend and the next to dig all the holes.

When we were revamping our 'Bargain House' (see story in GRs 107 & 108), we obtained an electric concrete mixer. However with our 'Retirement House' there was, as yet, no power connected. We were in luck, though, for our ex-neighbour had a small generator, which he offered to loan in exchange for the dirt we'd dug from our holes. 'Beautiful red soil,' he said. 'Just what I need for my fruit trees.'

Water was our other problem. You see, you need water to mix concrete, on average one bucketful per load of concrete. With none connected to our property we had to carry two 200 litre drums in the trailer and then get the water out of them, trying not to lose a drop nor slow down the person shovelling gravel into the concrete mixer.

It took three of us a day to pour the

concrete into the holes, while our youngest son Warren held the posts upright and straight with guidance from a magnetic level placed on the side of the post. It was slow work with the concrete being poured in by the bucketful as the wheelbarrow tended to knock the posts too often. We—Howard, my sister Charlotte and myself—alternated the jobs, on the assumption it was better to have backache, neckache and blisters than just to have huge blisters.

The process of mixing the concrete went something like this: Three buckets, filled by shovel with gravel, tipped into the concrete mixer, followed by one bucket of water and approximately half a bucketful of cement. When the mixture obtained the consistency of gluggy mud we tipped it one bucketful at a time into the holes, trying to drop as little as possible on Warren—not that he believed us.

After the steel poles were firmly in place the next step in the process of building our house was to secure the bearers onto the steel posts. At about this time I started to fill in a diary:

25/4/92: Put up bearers.
People: Howard, Susan, Warren
Time: 6½ hours

26/4/92: Joists nailed across the bearers.

People: Howard, Susan, Warren
Time: 3½ hours

29 & 30/4/92: Howard cuts out front and back walls. Howard did this in the afternoon after work so that the whole thing was ready, like a kit, for the weekend of assembly.

2/5/92: Finish joists and tack down floor which was sheets of structural ply, 1220 x 2250 mm.

Time: 6 hours

3/5/92: Raise front and back walls which were pre-cut by Howard
Time: 5 hours

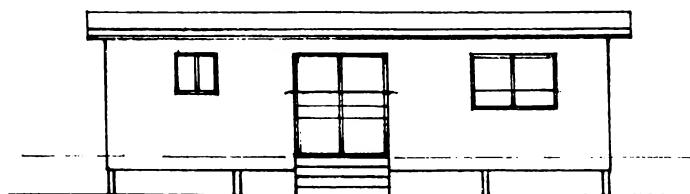
4/5/92:

Morning: Block the floor
Time: 3 hours

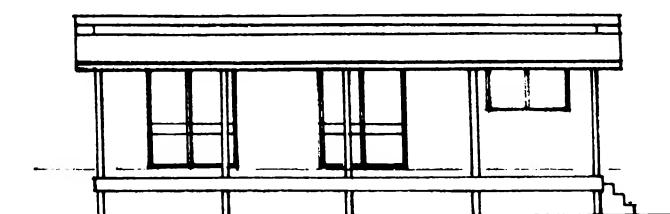
Afternoon: Howard cuts out the two side walls with Warren offsideing while I plant four fruit trees in what we hope to make our orchard.

6/5/92: After work, nailed fibro sheeting to one panel of front and back walls so the side walls could be nailed on in the coming weekend.

West Elevation



East Elevation



People: Howard, Susan nailing, Warren shifting ladder and handing out nails.

Time: 1 hour

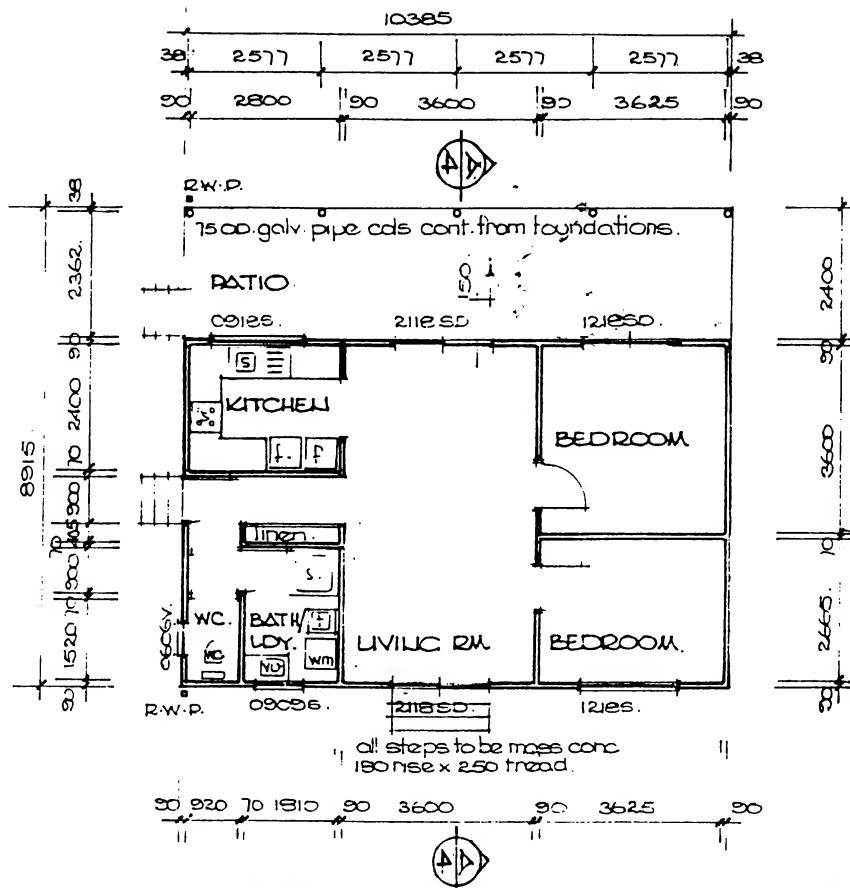
9.5.92: All wall framing up, ceiling joists across. Had a couple of problems here as I could not lift one end of the beams. However, Howard lifted the first end, put it on a 200 litre drum, then the other end onto the ladder then up with each end to the top of the wall frame.

In all of the above, Howard worked out the materials needed for the next stage after we'd finished each allocated job. For instance, when we'd finished the joists and tacked down the floor, he then did a materials list for the walls. It all went along smoothly and as this time of the year was considered our 'Dry' it only rained every other weekend.

PREVENT RUSTY SCREWS

To prevent screws from rusting in situ and being impossible to remove, coat them before use with a mixture of graphite and soft tallow. To remove a screw which has rusted in, place the flat end of a red hot iron on it for several minutes. When the screw has heated through it will turn easily.

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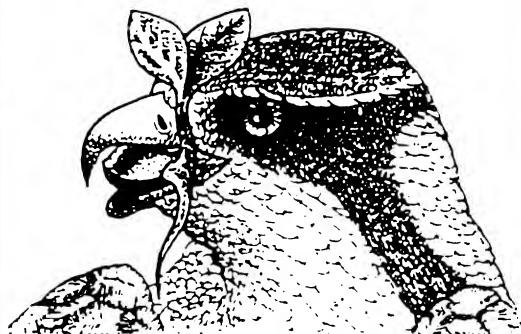
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SWEET POTATO

by Susan Hands, Innisfail, Qld.

The sweet potato (*Ipomoea batatas*), a perennial cultivated as an annual, is an ipomoea. There are about 500 wild species of ipomoea, however the sweet potato, as we know it today, is no longer found in the wild state. There are six basic shapes and three flesh colour groups: white-yellow, pink-orange and shades of purple. We find the pink-orange the tastiest but this often varies with your soil type.

ORIGIN

The sweet potato is of central or tropical South American origin. The presence of the sweet potato in Polynesia – whether it established in pre-Columbian times and if so, how – has consistently been a source of controversy. However the eastward movement of the sweet potato is not debated. Columbus brought it to Europe on his return voyage and the Portuguese took it in the sixteenth century to Africa, India and East Asia to link up with introductions westward by the Spanish to Guam and the Philippines.

DEVELOPMENT

It is usually planted from stem cuttings, although it may also be propagated from tubers or seed. I have to admit I've never tried seed, but we often buy a good looking potato from the local store and just place it a centimetre under ground, then when it throws shoots we cut the runners and transplant.

Plant habit is vine-like; herbaceous trailing or twining stems as long as five metres are produced. If you wish to keep your crop contained just pull up the runners and throw them back over the mother bush.

Root numbers reach a peak within four weeks of planting and secondary thickening starts within eight weeks of planting. Tuber elongation is completed within 16 weeks but width may continue to increase for 24 weeks.

Tubers are harvested as required; crop maturity being marked by leaf yellowing. Lowland areas to 500m, 2-4 months; to 900m, 3-6 months; 900-2000m, 3-9 months.

GROWING POINTS

Up here in the tropics, mice, rats, bandicoots, wallabies, wild pigs all love sweet potato so it is generally best to fence off your potato patch. Wild pigs present a major problem if your patch is not near the house as these animals are like miniature bulldozers with tunnel vision. Nothing much seems to stop them.

Sweet potato can be widely grown but grows best where average temperatures are more than 24 degrees Celsius. They are fairly intolerant of waterlogging as the tubers tend to rot, and then boy oh boy do they stink!

Sandy loams are considered ideal soils. Sweet potato is often considered as a crop associated with poor soils. This is fairly common to all root crops in that they often yield better on less fertile soils as they have a higher requirement of potassium relative to nitrogen. If your property has been recently converted from grassland then you will need to apply nitrogen and potassium. It's a good idea to prior crop with a legume.

Some people report that trellising helps with tuber yield, especially when there is too much 'good' soil. We have

tried trellising but couldn't say there was any great improvement in our yields, certainly not enough to offset the extra work. Then again we do have plenty of room on our block of land. Trellising may be worthwhile if you are pushed for space.

Sweet potato can be planted directly into new ground and is a fantastic ground cover as well as holding hill slopes, here it can be left to go its own merry way and only used if needed.

It has been said, that sweet potato probably produces on average more edible energy per hectare per day than any other major tropical food crop. If you are into subsistence farming, rabbits, guinea pigs, pigs, chickens, horses all love sweet potato probably because it has such a high content of sugar.

USING

Sweet potatoes can be boiled, baked, fried, stewed, used in soup, used in cakes, as a matter of fact it's a very useful sweet vegetable.

Boiled: Just peel, place into water and boil until soft. Delicious mashed with a little herbed butter.



As well as being a versatile food, the sweet potato plant, with its spreading growth, makes a fast-growing ground cover and can be used as erosion control on sloping land.

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The sweet potato has been an important staple in the diets of many cultures in the warmer areas of the world.

Baked: as per pumpkin or English potatoes.

Sweet Potato Cakes

500 g potatoes

125 g butter

3 eggs

125 g flour

Take your freshly boiled potatoes and mash them. Beat butter and eggs, add to the potatoes, beat well. Add flour. Mix together with a fork, roll out and shape into thin cakes. Bake in a quick oven. Sugar can be added if you like your cakes sweeter, cheese or herbs if you prefer otherwise.

Sweet Potato Soup

750 g sweet potato

1 small onion

1 stalk celery

60 g butter

1 lt chicken stock

300 ml milk

salt & pepper

Peel and dice sweet potato, chop onion and celery. Melt butter in heavy saucepan and lightly saute vegetables. Add chicken stock and simmer until sweet potato is quite soft, about 40 minutes. Here you can either sieve the mixture, return to clean pan, add milk, heat gently, or; beat the mixture with a beater if you like it nice and thick, then add

milk. Season with salt and pepper before serving.

Sweet Potato Cake

2 cups plain flour

2 tsp baking powder

1 1/3 cups water

30 g butter

1 1/2 cups grated sweet potato

1 cup raisins

1/2 tsp nutmeg

1 tsp ground cloves

1/2 cup chopped walnuts

Set oven temperature at moderate, 180°C. Grease and flour a 23 cm x 15 cm loaf tin. Sift flour and baking powder together. Place all ingredients in saucepan except flour mixture and walnuts. Bring to boil and simmer for 10 minutes. Cool, stir in flour mixture and walnuts. Pour into prepared loaf tin, bake 1 1/4 hours.

CUTWORM COLLAR



Cutworms can devastate your cabbage seedlings. To protect them, make each seedling a collar. Cut the bottoms out of margarine containers, cut a hole in the centre for the seedling to poke through. Push the collar down a couple of centimetres into the soil.

FENCE REPAIR

PART ONE

by Tony Haines, Rivett, ACT.

As most people living or planning to live in a rural area would be on a property with existing fences, I thought an article on the repairing of existing fences, and the replacing of some of the more derelict fences would be relevant. It is my hope that this article will help you to be able to repair all existing fences to achieve a safer and longer lasting fence.

MATERIALS

The cost of materials will depend on how far you want to go on a repair job. Of course it will cost more if you want to replace any of the fence with new materials. There is no reason why you can't obtain second-hand materials if you are prepared to look for them. A good source would be fencing contractors, they sometimes keep the old materials when they replace a fence and will in most cases be prepared to sell, that is my experience anyway. You could also scour the farm sales, auctions and trading papers. It is definitely worth the effort to look as the savings are remarkable.

- Second-hand star pickets are the safest bet, as the most you will have to do with them is straighten the bent ones and knock the clay off the bottom. Pickets are available new from rural stockists in bundles of ten.
- Tie wire is used to tie the mesh to the plain wires. Tie wire can be bought in any length from one metre to 1000 metres. Buy the longest roll you can. Tie wire never lasts long, as it is virtually indispensable on any size property and useful for everything from tying a fence to hanging a picture.
- Plain wire is a fairly safe bet, except

Twenty-six year old Tony Haines started work as a rural fencer when he was eighteen. However, he was no stranger to the rural life even then, having worked with his father, carting firewood, from the time he could walk. Tony worked for a fencing contractor for a number of years around Canberra. Two years ago a back injury sidelined him from physical work, but he hopes to start fencing again when his injury has healed. In the meantime, GR readers will benefit from his enthusiasm to share his experience in a series of articles, starting with this issue.

it is hard to know how much there is in the roll and if the roll is made up of one length or many lengths.

- Plain wire can also be bought new in many different lengths, any length from 10 metres to 1000 metres. The gauges you will need are: 2.50 mm high tensile, used for middle wire; 2.80 mm high tensile, used for the top and bottom wires; and 2.60 mm soft gauge, used for the ties to tie barbed wire and/or, if you replace the barbed with plain wire, to the pickets. When it comes down to it wire is wire so if you just prefer to have one gauge of wire to save on costs, that is not a problem. It will be a matter of personal choice on which gauge wire to use. The easiest to work with is 2.50 mm gauge, but 2.80 mm gauge is the stronger and the longer lasting of the two. (That is why it is used for the top and bottom wires.) I would advise that if you are running heavy stock (ie horses or cattle), to use 2.80 mm, but ultimately the choice is yours. You will still need 2.60 mm gauge wire even if you only choose the one gauge wire for the fence, as the high tensile wires are not suitable to be used for tying.
- Wire netting is often not suitable to buy second-hand unless it is in good condition. Netting stretches and is impossible to straighten back into a good condition. So unroll the netting and check that it has no huge holes, bends or creases. New wire netting is available from rural stockists and comes in rolls of 200 metres.

- Hinge joint and ringlock are safe bets second-hand, as they can be straightened and repaired. Hinge joint and ringlock are also available from rural

stockists in rolls of 200 metres.

- Strainer posts and stays: If the existing strainer posts are not in a good enough condition to use, they will have to be replaced with new posts and stays, available from rural stockists. The type of wood available as strainer posts will depend on where you live. In the Canberra region, and probably most of NSW, ironbark is used. There are two types of ironbark, inland and coastal ironbark. If coastal ironbark is used inland it will split. Some of the rural stockists use the more readily available coastal ironbark when they run out of the inland ironbark, so check the wood before buying. What you are to look for is a peace-sign-shaped split in the face of the timber, the splits will be fairly wide, so they are easy to pick. Ask the manager where the timber came from, if he won't admit that they are coastal then go somewhere else, or wait until the inland timber comes in. The coastal timber can be used inland, but the life of the timber isn't as long, as the weather gets into the cracks making the timber split even more.

- Second-hand strainer posts would be a rarity, as the contractors will usually use the timber for firewood, but there is no harm in trying. If you intend to put in or replace the fence ends you can use treated pine posts for the strainer post and the top rail, but be careful around horses as they will chew or eat it.

TOOLS NEEDED

- A pair of pliers or nips (these can be bought from any hardware store). Make sure you invest in a good pair as the cheap ones will wear very quickly and

will become all but useless. Forty dollars will buy you a good pair of either pliers or nips. Don't be fooled into buying those huge fencing pliers, especially the ones with the hammer on them. They are too big and cumbersome and useless at tying with tie wire. They are only helpful if you use a lot of number 8 wire, but this gauge is pretty much obsolete these days.

- A picket puller is essential for the removal of star pickets. I have included a design that I know works well (see diagram 1). It is made from steel pipe and is worth the effort and cost to make, although the material can usually be found at most tips, scrap yards and around properties, so the cost will be reduced, and even more so if you can cut and weld it yourself.

You will need a length of 75 cm pipe for the stand, 5 or 10 mm plate, roughly 18 cm square for the foot. For the handle, 13 mm thick, 50 mm wide length of plate, box section or pipe. If you are to use pipe then it will have to be flattened where it is joined to the stand. A piece of chain 150 - 255 mm long. A piece of 10 mm RSJ or angle iron, 130 mm in length. Cut the shape of the star picket in the top of the RSJ, a couple of millimetres bigger than the star picket to allow the RSJ to move up and down the picket with ease. Also three D or U bolts, one bolt (the length and size of the bolt will depend on what you use as a handle), two washers and one lock nut (see diagram 1 on how it all fits in together).

- Wire strainers: The best pair of wire strainers that I have used is the Hayes brand. I prefer these as I believe that you have a better control and can strain over a greater distance. They are available from rural stockists and can be hired from hire companies.
- Post hole shovel and crowbar: These can be obtained at any hardware store or from rural stockists.

REPAIRING

Check the overall condition of the fence so you can get an idea what materials you will need and whether or not the fence will need to be replaced or repaired. Walk along the fence and shake and look at all the strainer posts, split posts, stays, fence ends for rot, the condition of the mesh and wires. Look at the pickets to see if any are broken.

The first items to repair on the fence are all the strainer posts, split posts, stays and fence ends, check them again

for rot and looseness. Most of the rot on strainer posts and stays will only be the sap wood, so to check the depth of the rot, dig around the bottom of the post and chisel the rot away and evaluate how much solid wood is left. The average post is roughly 25 cm across, so if the rot is more than 13 cm deep, it should be replaced. If the strainer posts have to be replaced see below. To check split posts see below.

If the strainer posts are only slightly rotten in the base and loose, they will only need to be rereamed. If the stay is

loose in the stay hole (the morticed hole in the strainer post to take the stay), dig it up and replace the rock or block with a wider one to push the stay up into the hole so the strainer post won't move when the wires are restrained.

Putting In A Stay

To put a stay in properly there are only a few rules:

- The rock should be no less than 75 mm thick, no less than 150 mm if it is shale as it will crumble or crack if it is any thinner, and the rock should be flat.
- Don't use blocks of wood, the wood

Diagram 1: Picket Puller

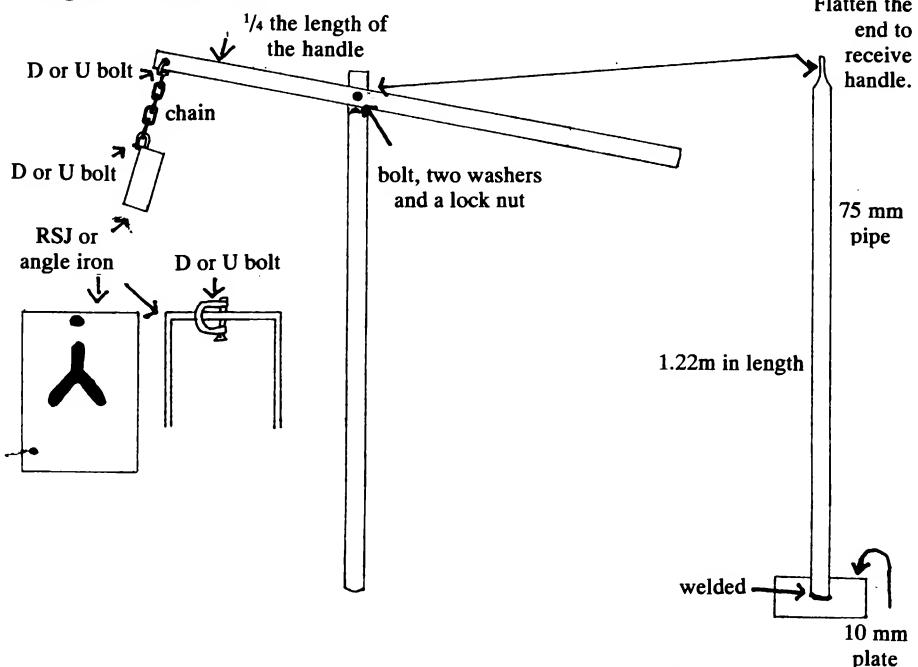


Diagram 2a:
Inserting The Stay

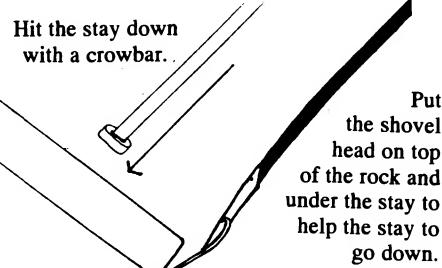
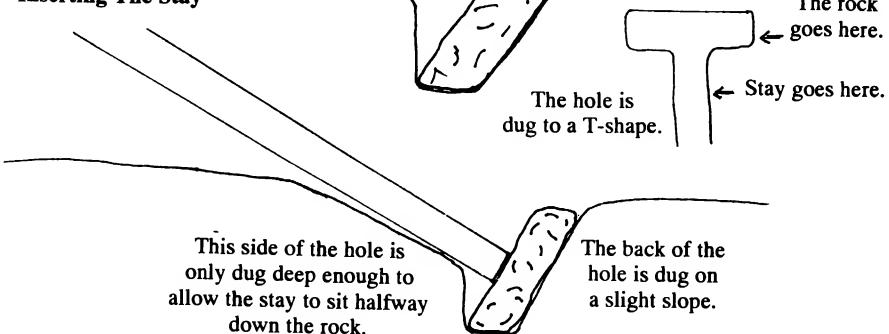


Diagram 2:
Inserting The Stay



will rot surprisingly quickly. Concrete blocks are fine as long as it's 75 mm or more wide.

- The hole for the stay and rock should be T-shaped.
- The hole for the rock should be deep enough to cover the rock, so animals can't injure themselves.
- The back of the hole should be on a slight angle, so that the rock is sloping a little allowing the stay to butt in hard against the rock (see diagram 2).

When you have chosen the new rock, put the end of the stay next to the hole while the other end of the stay is still in the strainer post. Hit the crowbar into the ground next to the bottom of the stay, and push the bar up, pushing the stay up into the stay hole in the strainer post to get a true length for the rock when you widen the hole. Put the stay on the rock, it needs to sit about 25 mm up the rock, the overlap will ensure a tight fit. If the stay sits up the rock further than this the back of the hole will need to be shaved. Make sure that you keep a slight angle in the back of the hole. Put the shovel on to the rock, then put the stay on the blade of the shovel and hit the top of the stay with the back of the crowbar, make sure that the shovel doesn't get stuck.

The stay should be nice and tight against the rock. If it will not go in, shave a little more off the back of the hole. Once the stay is in fill the hole up with dirt and ram it well (see diagram 2a).

Fence Ends

A lot of fences will have an alternative to the strainer posts and stay, these are known as a fence end. A fence end is two strainer posts roughly two metres apart with a top rail. Fence ends should have either one or two wires from the bottom of the first strainer post to the top of the second strainer post. If there are two wires then the other wire goes from the top of the first strainer to the bottom of the second strainer post. The wires are wrapped from twice to five times around the top and bottom corners and then twisted, or, as we call it, 'twitched' together. Then tied together where they cross to form an 'X'. The wire effectively works as a stay holding the tops of the strainer posts in. I have found that they are not as good over a long strain that has a lot of pressure, say from cattle, as a stay that has been put in properly.

Diagram 3: Fence End

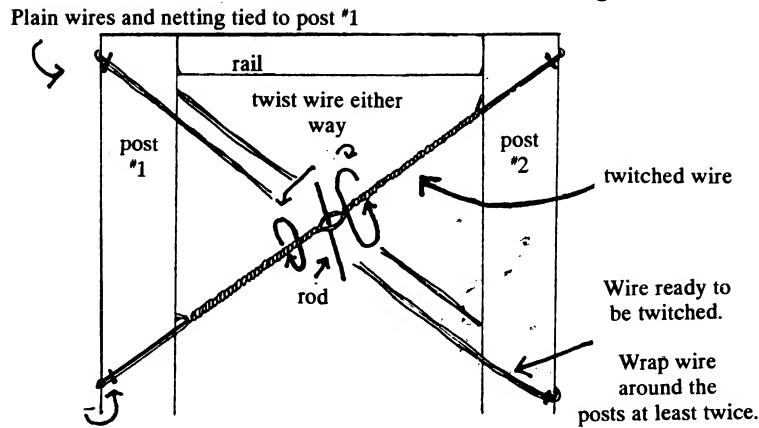
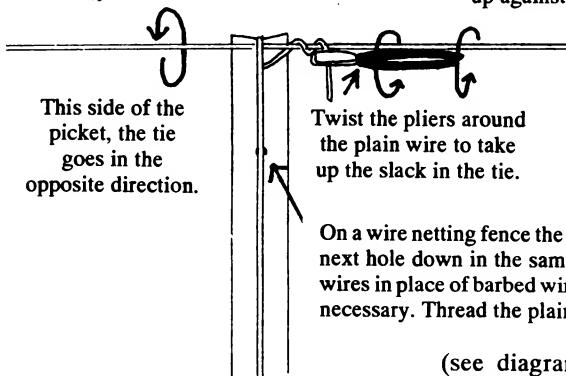


Diagram 4:
Tying the top barbed or plain wire.

Put the pliers on the tie and up against the plain wire.



This method is a good alternative to post and stay when you are running goats, deer or even horses. Check that the posts are tight and not rotten, check that the top rail is not rotten and that it is still in tight. Check that the wires are twinned together tightly (see diagram 3).

Split Posts

A lot of old fences will have split posts instead of pickets, or between every third and/fourth picket. Split posts can be left in as long as they are sound. They are made mostly of an inferior wood to strainer posts and are therefore more susceptible to rotting. The best way to check for rot is to give the post a push or a light hit with the back of the crowbar. If the post only moves then it will only need to be rammed. If it starts to crack, then it isn't much good and the split post will have to be removed or a picket driven in next to the split post. The easiest way is to drive a picket in as close to the split post as you can get it. The back of the picket or the opposite side to the holes (the flat end) is to go against the mesh, the holes in the picket face the wires. Then tie the wires to the picket as you would with barbed wire

(see diagram 4) only after the wires have been restrained. Removal of the split post is the other option. To save cutting the wires to get the split post out you can do a number of things.

The best way to remove the post without cutting the wires is to chisel out the holes that the wires go into and pull the wires out, then dig the post out.

Split posts are a good source of firewood, sleepers and furniture, as the part of the post that was out of the ground will, in most cases, still be usable and it has beautiful old rustic texture that can't be reproduced. Most of the time the split post will only need a good ram, as it is mostly the sap wood that rots first and the core will still last a few years yet.

Check that the fence is the right height. The topsoil could have risen over the years, or, if the fence is very old it might not have been built to today's height. If the fence is lower than it should be, pickets will have to be driven in every second or third split post or the split posts will have to come out.

Next time I will tell you how to replace the wires.

If any readers have fencing problems they would like help with please write to: Grass Roots, Fencing Queries, PO Box 242, EUROA 3666.

ROUND THE MARKET PLACE

We hope you enjoy this feature introducing new products relevant to readers' lifestyles and interests.

THE YO-YO PLANT SUPPORT SYSTEM

This clever device enables the grower to string up and train heavily laden plants easily and quickly. The Yo-Yo automatically tightens as the plant grows, so there is no longer a need to rehang plants as they grow. This reduces labour input considerably. It is also ideal for training young plants in a desired direction. Simply hook the line at the base of the plant and spiral around the main stem to provide support. The Yo-Yo can be hung from any overhead wire or ceiling and is easy to hook or unhook as required. They cost about \$2.00 each from:

Woodburn Hydroponic Gardens, PO Box 23, WOODBURN 2472. Ph: 066-822-548.

SHOWER POWER

OzKleen, a small Australian manufacturing company, has launched a product called 'Shower Power' which is claimed to be the best invention since the automatic dishwashing machine. It is a fast acting shower, tile and porcelain cleaner containing a natural plant acid, and is biodegradable. It is especially good at removing calcium scale, soap stains and body fats, leaving a sparkling finish and pleasant citrus smell. More information from:

OzKleen, PO Box 1425, BEENLEIGH 4207. Ph: 07-3807-7777, fax 07-3807-7700.

RECHARGEABLE PRODUCTS

Don Balassone at Soterion would like us to take more care of our environment. His contribution is to try to reduce our dependence on the use of throwaway batteries, so he is offering products that use recycled power. First in the catalogue is a range of rechargeable batteries, and a 12 volt solar panel, along with lights and torches that run on the recharged batteries or are rechargeable themselves. One of the torches incorporates a solar panel along the handle which will recharge in a minimum of six hours. There is a rechargeable Dolphin torch and a selection of lanterns and torches for outside, camping or emergency use. Included were fluorescent lights, nonfluoro lanterns, a halogen spotlight, industrial, waterproof, and key-hole torches, outdoor and survival products. Write to:

Soterion Pty Ltd, 2/37 Rushdale St, KNOXFIELD 3180. Ph: 03- 9764-9769, fax: 03-9764-9738.

THE TOTAL NUTRITION CENTER

Total Nutrition Centre is a kitchen appliance which looks like a blender. It is used to process all types of food to a fine particle size thus liberating all the minerals and vitamins in the food. This helps increase the amount of fresh food – fruit and vegetables – in the diet as well as increasing the nutrition derived from it. It is this increased raw food intake, associated with higher nutrition, that gives the users of the TNC better health. The TNC runs at very fast speeds, as high as 37,000 rpm. This gives it other uses; for example, if ice is added to a fruit mix it will make a smoothie, yoghurt, or ice cream, and if vegetables are processed at high speed they will heat up and can be made into soup. For further information:

Total Nutrition Center Pty Ltd, 58 Manly Drive, ROBINA 4226. Ph: 07-5578-9511, fax: 07-5578-9522.

SOLAR HOT WATER INDICATOR

A solar hot water heater can provide most of the required hot water on sunny days, otherwise it is necessary to boost the water temperature. In order not to waste energy, we need to know how much water is in the tank so we are not using electricity to boost water we will not need to use. The Hot Water Indicator has eight lights (LEDs) arranged vertically. One to six indicate the hot water level (water temperature over 40°C, sufficient for a hot shower) seven and eight indicate water temperature over 50°C and 60°C. Powered by a 12 volt battery or 240 volt AC plug pack, easy to install with sensors on the outside of the water tank. Information from:

Fastwind Pty Ltd, PO Box 350, MUNDARING 6073. Ph/fax: 09-2952-331. Mobile: 014-883-337.

SOLAR ROOF TILES

Solar roof tiles have just been introduced to Australia. They can be installed on conventional rafters and battens just like clay tiles, without the need to take special measures or interrupting the roof surface line. The solar tile's plastic frame comes from Switzerland, and the solar cells are manufactured in Sydney. Each tile costs about \$400 and is designed to clip into the next – the total installation designed to fit in with tile or metal roofs. A typical system might require 30 tiles and they are designed for installation in sloping roofs either on new or existing buildings. They are just as watertight as normal tiles. With their modular concept, installations can be of almost any size and can easily grow with your energy needs.

PV Pacific Solar, PO Box 118, LANE COVE 2066. Ph/fax: 02-427-5887. Mobile: 015-895-370.



Solar roof tiles

ALOE VERA PRODUCTS

The aloe vera plant is well known for its many healing properties, but it is often difficult to find products made from it that are formulated for the many uses of the plant. Aloe Plus U is a small company which offers many aloe vera products by direct mail, thus keeping their prices at wholesale level. Other products are available that are also formulated from natural ingredients, and no animal has suffered in the manufacture and testing of anything they sell. Write for brochures to:

Aloe Plus U, 134 Mahoneys Rd, THOMASTOWN 3074. Ph: 03- 9462-3870, fax: 03-9462-3907.



DOWN HOME ON THE FARM

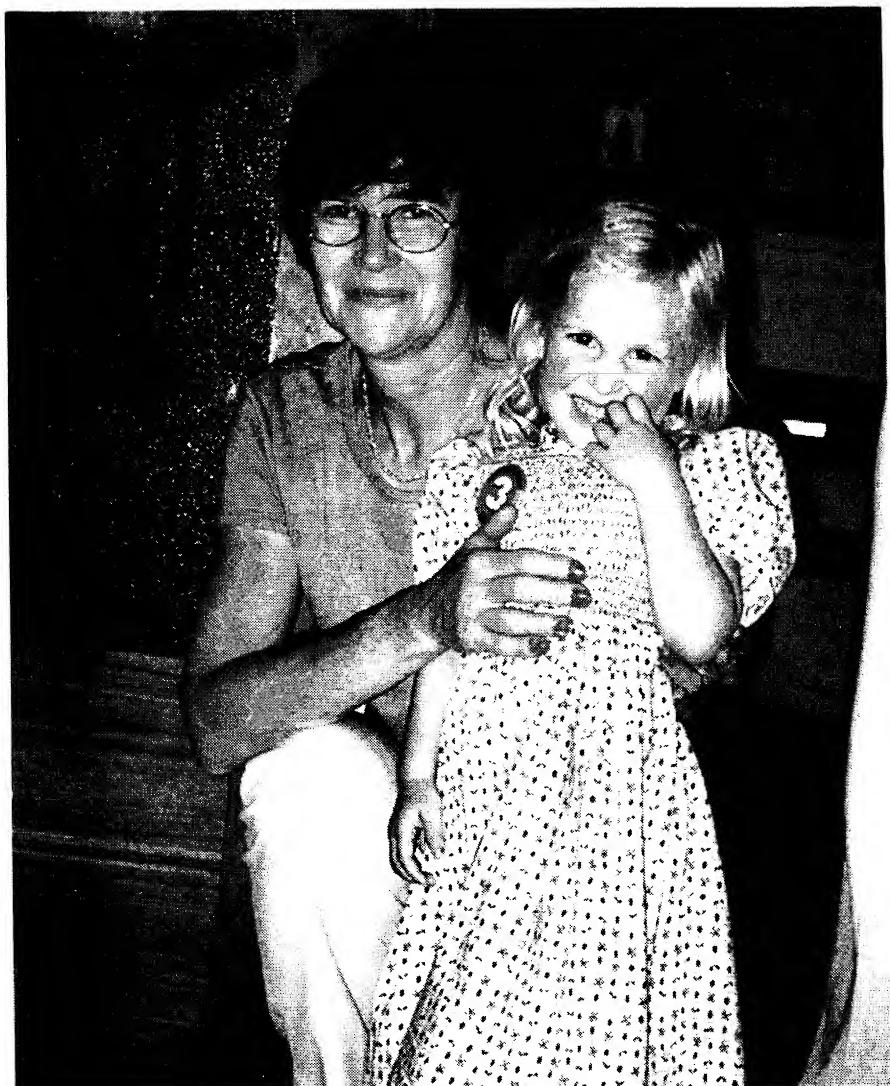
by Megg Miller.

I like to think of myself as being fit, after all, a couple of hours every day briskly walking to and from the various poultry sheds, lifting tubs of feed and carrying water must tone the muscles. Add the weekend work too, gardening, a chook shed to be cleaned out and maybe leaves and fallen feathers to be raked up for the compost.

During the warmer months it's not unusual to spend three hours a day on poultry jobs. With all this physical work I should be like an athlete ready for a meet. A breakdown in the office van before Christmas gave me the opportunity to test my fitness – and I didn't fare too well!

This challenging event occurred at the end of a busy, hot Saturday. I'd had an unpleasant task to perform, the disposal of the body of a deceased wallaby that had mysteriously appeared inside the front gate sometime the previous night. I assumed the poor beast had been hit by a vehicle and the distressed driver dropped it into my place hoping I could facilitate its recovery. Alas, shock and internal injuries took their toll and I considered it a fitting (and practical) finale to take the poor creature's body to bushland at the end of my road. Darkness had fallen by the time I got away and the disposal was accomplished without fuss. I turned the vehicle around for home and the unfinished chores that awaited me. A kilometre or two down the road the van lost power and stopped and there was nothing I could do but push it to the side of the road and walk home. Being full moon it was a beautiful night and I didn't need the heavy torch I had on board. Not one car traversed the road and though I passed several houses with a light on I was loath to walk in and rouse the occupants.

It took an hour and a half to get home – ample time to appreciate the still and brightly lit countryside. And I could feel blisters developing and muscles complaining that I didn't know I even owned. Bother the unfinished jobs I thought, hot salt water for my sore feet and liniment for the muscles are more important. I felt a wreck and wondered if I would walk again. The fact that I was able to feed and water poultry as



Army Megg, as goddaughter Bronwen (pictured) affectionately calls me, at her birthday party.

usual next morning, albeit slowly and gingerly, was testimony to my fitness and I was probably a trifle hard in regarding my performance as disappointing.

Need I add that next day the van started and made the trip home effortlessly. It would be impolite to print my comments, but I did feel vindicated when the garage reported back on the existence of some serious problems. I was grateful the breakdown occurred close to home rather than on some obscure back road miles from help. Funnily enough, the van has RACV coverage, but guess who hadn't bothered taking their mobile phone because it was a

local trip!

With summer finally arriving with a vengeance life seems to revolve around keeping water up to the garden, the young farm shrubs and the livestock. The latter are more easily satisfied than the vegies in the garden. Straw mulch is helping minimise water usage, but it is frightening just how much is required to maintain a small lawn and medium sized vegie plot. Newly planted seeds and seedlings need a drink every day though I stretch watering to every second or third day for the more established crops. The last couple of months I've been sowing by the moon and those species

planted at the most propitious lunar time seem to be doing better than compatriots sown willy-nilly. The corn plants in particular look fantastic and they were put in according to the moon. The bulk of the crop is commercial hybrid seed that was available locally and I filled the final couple of rows with seed picked off an old cob of coloured corn left over from last year. This has out-performed the commercial seed in terms of growth and so now I'm looking forward to comparing yield.

The big disappointment has been the peppers. I can't recall planting them at the advised lunar phase and whether it has been a combination of inappropriate sowing time and assault by an invading chook, or just bad luck, they have certainly failed to prosper. I even purchased established seedlings in flower to catch up time, but these too have been ruthlessly attacked. My one surviving, thriving plant is safely enclosed under netting, proudly bearing a sole pepper but I dare say more will appear in the weeks ahead. If the cost for the failed seedlings is taken into account it is quite an expensive pepper and one to be chewed and enjoyed slowly.

One morning I walked out the back door and almost trod on not one but a sea of geese. I'd left the side gate ajar! I rushed out the front and along the verandah to the lawn and the vegie garden, but not one bird could be seen there. As well, there were no tell-tale droppings on the lawn. I naively imagined they had overlooked the partly-opened gate to this area of the garden! Heaving a sigh of relief I got myself organised and the invaders out as quickly as possible. Maybe these birds are smarter than I give them credit for because later I realised the rotters had made an extensive forage into the garden. They had eaten the decorative kale, the broccoli I had set aside for seed, rhubarb leaves (and survived), and trimmed the tops of the mature cabbages so they resembled a manicured hedge. When I discovered them they obviously had either eaten their fill or feared my wrath. Their intuition was right as I go berserk when I discover perpetrators red-handed and goose would have been on the menu that night. What was amazing about the incident was that they were all quietly sitting on the path waiting to be let out. I've since erected a gate to the entrance of the vegie garden and check it every night. Understand-

bly, I'm more careful about keeping the other gates closed too.

Over the festive season a number of opportunities arose to spend time with Sunshine and also my goddaughter Bronwen. The latter celebrates her birthday in December and it is a good excuse for a pre-Christmas get-together. This year was Bronwen's third birthday and I had strict instructions to keep the whole day free and to get away from the farm at a reasonable hour. Third birthdays are exhausting events for all involved, so when a quiet walk to the park was suggested late afternoon I joined Bronwen's Nana and Auntie Sharon in taking the child and half her presents for time out. When the swings and slides palled the play make-up came out and I submitted to having my nails painted and a slash of lipstick applied to the mouth region. Returning home, I was horrified to walk into the lounge and discover additional people and then learn that the celebrant who had named Bronwen some years previously had been recalled to formally acknowledge my role as godmother. Embarrassed by the heavy handed warpaint and overcome by the thoughtfulness of Bronwen's family, I burst into tears. These turned into wails when I looked up and recognised Sunshine, who obviously had been in on this lovely secret. Suffice to say the day ended in a second celebration.

Bronwen adores Sunshine (as we all do) particularly because they both share blonde hair. It obviously has special bonding significance to this tot. Suni in turn is rather overwhelmed by such hero worship and it is amusing to see and hear her repeat the games and rhymes that were an integral part of her childhood. When a visitor looked at a photo of the three of us on the fridge and asked if the tot was my granddaughter I said, 'No, we're both too young!'. What's a tiny white lie between friends.

I've just survived Bronwen's first solo stay over here - I'd forgotten what it was like to have the continual chatter of a littlie. The livestock were shocked by the excited squeals and flying food and there were occasions when bedlam reigned. A box of chickens temporarily housed in the lounge took the prize. Chicks were carried and kissed and fed and watered time and time again. Surprisingly, they all survived the ordeal. When Suni and her friend Marcel arrived this week for some country air we recounted incidents from our past about

PENPALS

Hi! My name is Adrian (age 26). I would like to correspond with people of any age and location. Interests include traveling, films, reading and sport. All letters answered.

Adrian,

C/- PO Box 242, EUROA 3666.

I find GR very enlightening and like the interesting articles and letters from caring people. I am divorced and suddenly my three children have grown up and I find myself alone and lonely, having lost track of old friends over the years. I love anything to do with the environment, animal liberation, the seasons, gardening, ocean and mountains, and would love to correspond with both males and females who are '40ish', also lonely, also divorced, with sense of humour and similar interests, anywhere in Australia.

'Lonely Seashell',

C/- PO Box 242, EUROA 3666.

Hi! My name is Kelly and I would like a penpal any age, gender, anywhere in the world. My hobbies are art, reading, swimming, dancing and writing. I am 12 years old and have two sisters. I love animals and would love to live on a farm.

Kelly Crocker,

C/- PO Box 242, EUROA 3666.

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little chicks being in the house. These two sophisticated young adults were disappointed to learn they had missed out on the chicken box. I didn't spoil the nostalgia by reminding my country bred daughter of the smell that invariably accompanies boxes of chicks. It would spoil the memories.

OASIS OF TRANQUILLITY

The North Coast Regional Botanic Garden



Prepared by: the Friends, Coffs Harbour, NSW.

One of the finest assets of the community of Coffs Harbour is the North Coast Regional Botanic Garden, a magnificent fifty acres of gardens and unspoiled natural bushland, set in the heart of this thriving subtropical city. It is a miracle of mammoth proportion that such a truly unique treasure should have survived the encroachments of development, so visible almost everywhere else in this popular tourist playground and area of dynamic population growth. The incredible benefit of being almost an island, surrounded on approximately 80 percent of its perimeter by the waters of Coffs Creek, immediately envelops one's consciousness with a depth of peace in an oasis of tranquillity, all too rare in our bustling contemporary lifestyle.

IT WASN'T ALWAYS BEAUTIFUL!

It was a mess. Well hidden, the local night soil disposal area from 1907 to

1964 and rubbish tip from 1938 to 1964 was an environmental disaster area, conveniently hidden and almost inaccessible. In 1973 members of a local conservation group on a canoe trip up Coffs Creek became aware of this large area of despoiled bushland. A visionary plan was prepared and after much lobbying the botanic garden concept was accepted by council and the land dedicated in 1975, but no funds were available! Further community pressure resulted in a development plan being prepared and accepted by council in May 1980.

A public meeting in August 1980 formed the 'Friends' Steering Committee which arranged an inaugural meeting of the Friends of the North Coast Regional Botanic Garden on 9th April 1981. Within two weeks this small dedicated community group commenced their weekly working bees to clean up

thirty years of bottle and can dumps and remove the lantana, coral trees, camphor laurels, toilet cans, and car bodies, and to revegetate despoiled areas.

THE 'FRIENDS'?

The Friends of the North Coast Regional Botanic Garden Inc (for short the Friends), is an active community group formed to develop the garden as a co-operative project between Coffs Harbour City Council and the community. Council, as trustee, approves works and accepts maintenance responsibilities.

The Friends accept responsibility for carrying out approved new works, including paths, irrigation, raised beds and more; all plant purchases, planting and labelling; staffing the Information Centre; all publicity, awareness and promotion; all guiding and educational functions; all seed bank and research functions; funding these responsibili-

ties. The Friends is an active hands-on group, with over 120 participating members who volunteer on either a weekly or monthly basis and enjoy contributing their time to a worthwhile co-operative project in a beautiful environment.

Commitment Of The Friends

Figures from several years ago show that the Friends' contribution to the development of the Garden totalled 6050 hours of voluntary work and \$27,000 in direct expenditure during that year. At that time the Friends' ongoing contribution to the development of the Garden was a total of 38,850 hours of voluntary work since 1981 and \$150,000 in direct expenditure. Overall to date, the value of the Friends' contribution to the development of the Garden is over \$600,000.

The Friends have accepted a long-term commitment through their Botanic Garden Foundation. The aim is a capital secure account, for long-term capital works, scientific research and education. Less than two years after it was launched the Botanic Garden Foundation account stood at \$76,000, from members' fund-raising and donations from the public.

The work of the Friends has been recognised in many tourism and community service awards. In 1993 they

achieved the level of finalists in the Banksia Environmental Awards.

The Friends take pride and pleasure in the Garden being open every day of the year – free admission. A donation box is available for visitors who wish to support the Friends' projects. Visitors' donations account for about 25 percent of expenditure.

ENVIRONMENTAL MANAGEMENT

Despoiled bushland has become our treasure. Visitors often arrive with an expectation of formal flower gardens, concrete paths through grassed areas, conservatories, and plantings of oaks, elms and poplars. They discover that our Botanic Garden is an exciting subtropical experience, beautiful, peaceful, educational. The despoiled bushland is now a series of nature and wildflower walks. The rubbish tips are prime display areas, picnic areas and endangered species plantings. The night soil disposal areas are being developed into rainforest, a sensory garden, global region plantings, outdoor display areas and more! Visitors return again and again, often amazed at what the Friends, as a community group, working with nature, can achieve through planning, commitment and 'hands-on' work. Environmental education in an outdoor learning

area and the involvement of the community in the work of the Botanic Garden play a fundamental role in the conservation message, encompassing: the necessity to appreciate and conserve local flora, human impact on the plant world, plant biodiversity, species at risk of extinction.

Guiding

Guided tours are organised for teachers and school groups. Trained guides explain the various aspects of plants, their habit of growth, natural habitat and the importance of their survival in nature. Student participation develops the recognition of the need to conserve flora and fauna and to protect our environment. Guiding is extended to special interest and tourist groups on request.

Mangrove Boardwalk

The boardwalk, the first in a Botanic Garden in Australia, was constructed as an interpretive one hour walk, to illustrate the importance of mangroves in the estuarine environment. Information boards describe the plant and animal communities and some of the unique environmental adaptations. The bird hide shows habitat type and sketches of all the estuarine birds, for easy identification. The northern boardwalk will grow the various mangrove species of



Volunteer 'Friends' enjoy co-operative projects to improve the Gardens.

the east coast of Australia.

Rare and Endangered Species

The rare and endangered species project is aimed at stimulating greater conservation effort to ensure that no further species become extinct, either unwittingly or through ignorance or neglect. The north coast of NSW is recognised as a biogeographical region of great scientific importance, with many species at risk, due to loss of habitat. Clearing for agriculture and, more recently, urban development is creating a very real problem.

Seeds or cuttings for the plantings have been provided by both professional and amateur local enthusiasts with a deep interest in the native plants of the region. Re-introduction, seed collection, germination testing and nursery propagation are high priority activities.

The Friends produced a booklet to assist the public in identifying and protecting species at risk. This book is now being updated. One species, *Quassia A*, was rediscovered by a member of the Friends, after it was thought to have been extinct from 1965 to 1984. The largest recorded plant of this species has been grown in the Garden, it has now flowered and fruited. *Lepiderma pulchella* was found to have male and female plants. Seed distribution by the Lewin honeyeater is being studied. *Phaius australis*, a naturally occurring species, has been distributed to orchid specialists.

Seed Bank

A seed bank is generally regarded as the most valuable method of ex-situ storage. It is a collection of the natural germplasm organs of plants, stored under special conditions to ensure their long-term survival. The seed bank arranges seed collection by members in the north coast region. The seed, mainly of rainforest origin, is systematically

recorded and stored under specific conditions. Little is known of the requirements of the seeds of most wild rainforest plants. Viability of each sample is tested at regular intervals, increasing the knowledge of recalcitrant seeds, incompletely developed seeds, dormancy and germination. Annual seed lists (378 species) are circulated to Botanic Gardens and scientific institutions worldwide.

North Coast Rainforest

This project is creating five basic rainforest types that occur on the north coast of NSW: developing rainforest, palm swamp rainforest, subtropical rainforest, warm temperate rainforest, dry rainforest. Using the pioneer species found in natural succession processes, the Friends planted over 2000 seedlings. The project is very educational, as it shows the techniques local landholders require to re-establish rainforest, particularly on small holdings.

Public Participation

The greater the interaction with the community in the Botanic Garden, the more the community will appreciate plant life and the need to conserve it, and the more financial support will be justified from both individuals, and local authorities. Coffs Harbour City Council, as trustee, has recognised the benefits of co-operative shared responsibility, and the technical skills and fundraising capacity available through the Friends. The Friends have recognised the benefits of a 'community garden' concept, and public participation is seen as an act of good citizenship.

For more information about the Garden generally or about joining the Friends, write to: The Secretary, Friends of the Botanic Garden, PO Box 648, Coffs Harbour 2460.



SALTBUCK ALTERNATIVE FOR SALINITY CONTROL



Under extremely saline conditions on heavy clay soil, saltbush (used widely in salinity control planting) either doesn't survive or grows poorly.

Over 1300 hectares of poor quality saline soil in the Kerang area is being revegetated with a mixture of salt-tolerant grasses and volunteer halophytes (plants which grow in very salty soil).

The planting programme, initiated by the Department of Agriculture, is endorsed by local land management plans. The worst affected areas are identified and fenced off to exclude grazing animals. The soil is cultivated and a mixture of tall wheat grass, puccinellia, balansa clover and strawberry clover is broadcast. Seeds germinate after the first rain. Volunteer halophytes, including red weed and samphire, will colonise areas too saline for the salt-tolerant grass species.

After several years without grazing, the result is a mosaic of species corresponding with the salinity distribution.

The main aim of the programme is environmental protection, although as an extra benefit many unproductive areas may return to limited productivity. Saline water run-off is reduced, soil erosion minimised, plant water use increased, capillary rise of salts minimised, and some autumn grazing is available on previously unproductive land.

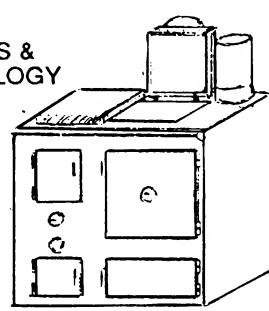
For more information on how this programme could be adapted for use in your area contact your local Department of Agriculture or salinity control organisation.

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Recent Releases

On this page we present information about newly published books that we feel will interest readers, with details of prices and publishers. We no longer distribute books for other publishers so if you're interested in buying any of the books described here, please order them through your nearest bookstore.

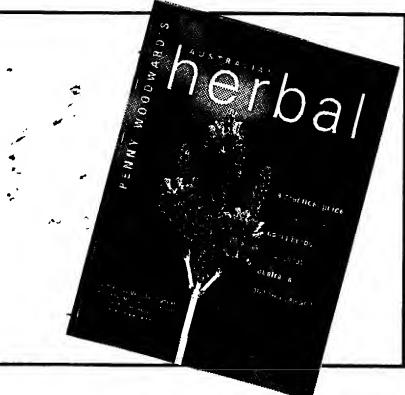
★ FEATURE TITLE ★

AUSTRALIAN HERBAL – by Penny Woodward

A comprehensive guide showing how to grow a wide range of over 200 herbs, with ideas on their subsequent use. The author has grown all the herbs herself, so the instructions are based on personal experience. Each herb is described in detail with notes on growth habit, propagation, harvesting, varieties, etc, and is well illustrated with sketches, and sometimes photos, for identification. Included are chapters on propa-

gation, cultivation, organic production, companion planting, container growing, harvesting, medicinal use, and using herbs as dyes. Another comprehensive chapter has a chart showing culinary uses of the herbs, and there is a thorough list of societies and suppliers at the back of the book. A very good reference for everyone.

P/b, 242 pp, Hyland House Publishing.
Ph: 03-9696-9064. RRP \$29.95.



PERMACULTURE PLANTS, A SELECTION

– by Jeff Nugent and Julia Boniface.

This useful resource book is based on the concept that the tree is the tool for the improvement of mankind. It begins with a short overview of permaculture, its use in the design and development of a property, with notes on species selection and propagation. It then describes the many species with potential for perennial food production both for people and animals – mainly nuts and fruits – with many of the less usual species included. Good information for those thinking of planning family food production.

P/b, 160 pp, Sustainable Agriculture Research Institute, Chalwell Road, Carlotta via Nannup, 6275. Ph: 097-561-271. RRP \$35.00.

THE FENG SHUI HANDBOOK – by Master Lam Kam Chuen.

Feng Shui is the art of arranging one's life in accordance with the forces of the universe to bring it into harmony with nature, thereby improving health and wellbeing. This handbook is to be used to understand the Chinese approach to how energy moves in our surroundings, and how the style in our buildings and interiors affects us at a subtle level. After a description of the fundamentals, it shows how to design a home, garden or work environment that is healthier and more energising.

P/b, 158 pp, Hodder Headline Australia. Ph: 02-9638-5299. RRP \$24.95.

ECO FRIENDLY HOUSE PLANTS – by B C Wolverton.

Dr Wolverton's research started 25 years ago at NASA when the build-up of hazardous pollution levels in the Skylab spacecraft was first discovered. House plants proved to be the most promising means of maintaining a healthy indoor ecosystem in space, and in any enclosed living area.

Toxic chemicals are usually found in homes as part of building materials, floor coverings and furniture. In this book, the author discusses and analyses 50 house plants, explaining what they can do in home and office, rating each according to its effectiveness in removing various atmospheric pollutants, and recommending the best management and growing conditions.

H/b, 144 pp, Allen and Unwin. Ph: 02-9901-4088. RRP \$29.95.

OVERCOME NECK AND BACK PAIN – by Kit Laughlin.

The author believes that most neck and back pain is experienced in the muscles associated with the spine and is caused by excessive tension. The solution is to identify the muscles involved and to use exercises for stretching, strengthening and relaxation. Gentle stretching exercises reduce the pain, relaxation promotes healing and enhances sleep, and strengthening protects the area from injury. This develops a strong and supple spine through to old age.

P/b, 197 pp, Simon and Schuster Australia. Ph: 02-9415-9905. RRP \$35.00.

LIVING 'WELL' WITHIN YOUR MEANS

– Cassandra J O'Loughlin.

With years of experience in living frugally, and 'having suffered most of life's experiences', the author has published her own guide to the potential of living self-sufficiently. She points out that 'all the ideas in this book are geared towards living on less and saving money. Methods to apply these principles could fill volumes and are as varied as people themselves. My intention is simply to outline ideas and encourage you to develop a system that will suit you'.

Living Well offers sound practical ideas on food storage, sprouting, the backyard garden, cleaning with environmentally friendly products, etc, with many recipes and handy hints. A good start on the road to self-sufficiency.

P/b, 95pp, O'Loughlin's Desktop Publishing, 2 Delprat Avenue, Beresfield, 2322. Ph: 049-662-676. RRP \$17.95 incl p&p.

THE HAMLYN ENCYCLOPEDIA OF ALTERNATIVE HEALTH – edited by Nikki Bradford.

Have you ever felt sick and wondered what the alternative health remedy for the ailment would be? If so, here is a book that will help. It describes 30 different alternative therapies from acupuncture, aromatherapy, herbal remedies, homoeopathy and reflexology to hypnotherapy, rolfing and crystal therapy. These therapies are not just for physical ailments, but offer help for anxiety, depression, shock, stress, insomnia, bereavement, acute restlessness and paranoia. They also help with ailments which commonly affect children such as chickenpox, measles, mumps, whooping cough, croup, colic, sticky eye, thrush, etc. These and many other ailments are described, together with their orthodox treatments and how the appropriate alternative therapies would be used.

H/b, 384 pp, Reed Books Australia. Ph: 03-9245-7206. RRP \$49.95.

HYDROPONICS FOR EVERYONE

– by Dr Struan and Jennifer Sutherland.

Hydroponics – growing plants without soil – can be done indoors without natural light and all year round. Fruit, vegetables and flowers are all grown hydroponically these days and an industry has grown up providing equipment for those wishing to grow hydroponically. This book aims to make hydroponics accessible to gardeners everywhere and to offer a choice of options to suit each individual. The authors were converted to hydroponics when they realised this method allowed them to have full control of the plant's growing conditions, preventing losses experienced in their outside garden from cats, lack of sunlight and warmth in cooler seasons, poor moisture control and weeds. They could also control pests without poisons. This is a comprehensive and practical guide for those interested in vegetable, herb and flower production indoors.

P/b, 192 pp, Hyland House. Ph: 03-9696-9064. RRP \$29.95.

POETRY

SOUTHERLY BUSTER

*Busterly, blustery southerly breeze,
After a hot day,
How it can please.*

*Crotchety, crusty, mad as can be,
Making a commotion,
Tearing the sea.*

*Whistling, whining, blowing the trees,
Ruffling the rubbish,
Southerly breeze.*

*Cooling us, calling us names by the score,
Blowing and banging
On the back door.*

*Blowing us, showing us how hot we were,
Coming to the suburbs,
Cooling the air.*

*Busterly, blustery southerly breeze,
After a hot day
How it can please.*

Jeanette Morris

MAN OF THE WESTERN PLAINS

*A bronze face of tanned leather . . .
Deep lines engraving his eyes of grey . . .
A cow-hide hat and a broken feather . . .
A steel-horn saddle astride a bay.*

*The rattle of spurs, the thud of hooves.
He chews tobacco while his horse briskly moves.
Upturned dust clouds the desert air
As they trot on with no time to spare.*

Monica Smejsa

MEDITATION

*Witching hour
On the iron-work seat
Above the dam.
Witching time
Life-reflecting mirror,
Trees in the dam.
Witching thoughts
When ducks fly in
And ripple the dam.
Witching place
Of all things magic
Seen in the dam.
Witching world
Where all is possible,
watching the dam.
Witching truth
That takes me
Beside the dam.
Witching – watching.
All is witching
By the dam.*

Tom Kelly

THIS SHELL

*This shell,
whose body rests in my palm.
its roundness beautifully supported,
by raised ridged bands,
forming a porcelain-lined cup,
with its curling lip turning thought,
into the mysterious centre,
where the sea whispers,*

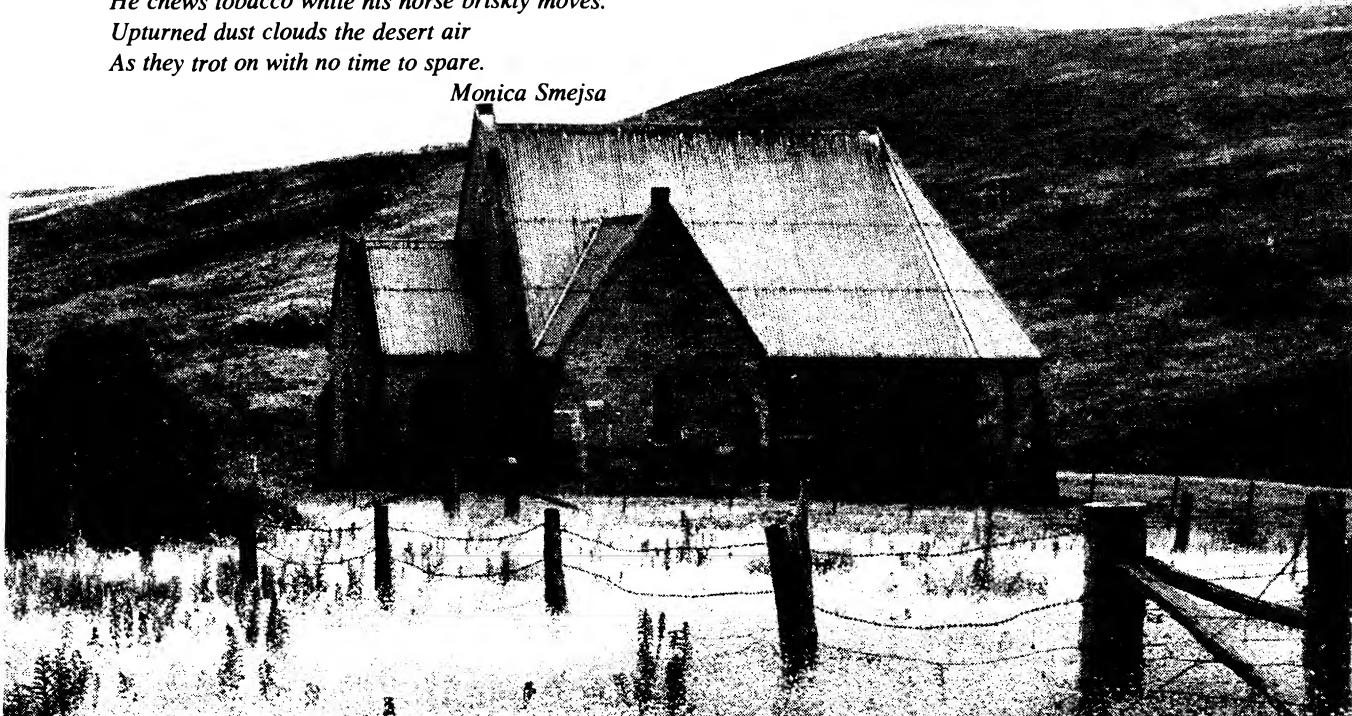
*Lip and curve meet to form,
the breast and nipple,
that terminate the convolutions,
fiddling point for the fingers.
diversions from the tiny cave within,
where mystery whispers.*

Ailsa Barr

THIS HARDENED LAND

*The earth is dry and scorched by the sun
That endlessly beats down,
It forms a hard unyielding crust
And weathers all around.
The faces of the men that toil
Against the greatest odds,
Are lined just like the hardened soil,
And streaked with sweat and dust.
But still they toil against this land
Against the burning sun,
And as they work and hope for rain
That rain must surely come.*

Sue Dunncliffe



GRASSIFIEDS

HOW TO ADVERTISE

Use the form provided below, or a separate sheet of paper, to print your advertisement clearly, **not in block capitals**, including correct punctuation. Remember to include an address or phone number in your advertisement. Count the number of words and multiply by 60 cents per word (phone number counted as one word) to work out the total cost of your advertisement. Send your advertisement and payment to *Grass Roots*, PO Box 242, Euroa 3666, before the deadline and we'll include your advertisement in the next issue of *Grass Roots*. **Deadline for GR 120 is 28th February, 1997.** Please do not fax ads.

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PROPERTY FOR SALE

NEW SOUTH WALES

NYMBOIDA—COUNCIL APPROVED, split level mud brick & timber home on 179 ac. Beautiful views, abund wildlife. Solar power, dam, lge enclosed vegie gardens. Large shed suitable for living, studic, workshop. Friendly local community. School bus at gate, 40 km from Grafton. \$108,000 ONO. Phone: Mali for details or inspection: 066-494-300.

COMBOYNE VILLAGE, shops, school, power, water, tar to Wauchope — Port Macquarie, 1000m² sloping block, rich soil, great views. \$26,500. Ph: 065-832-112.

SUIT ANY TYPE HOBBY FARM, 324 ac, 99 yr lease! New house & sheds. All out town limits. Old house & sheds (storage). New fence all around, 3 sml paddocks 1 big. Dam 10,000 yds, 17 different f/trees bearing. Some good furniture, town water, power. Five km from town, 1 km school bus. Well covered with trees. Now running pigs. Reluctant sale, ill health. Ph: 080-877-061 AH, 6 to 9.

WILDERNESS PROPERTY, 1000 ac of forest, fauna, firewood, interesting landscapes of granite boulders, caves, ranges & meandering crks, backs onto state forest area. Truly a place where you can lose yourself. Three titles, seller will not separate. Situated Deepwater area nth NSW. Will sell at \$150 per ac. Contact: 03-5942-7426.

BETHUNGRA, 15 mins Cootamundra, Junee, 6 ac of crk flat, 54 ac partly treed. Neat 3 b/r home, tank & town water. Big steel shed. Quiet location. Price \$94,000. Ph: 069-273-671.

BEGA VALLEY, 80 ac, mostly bush, perm crk frontage, state forest on side & rear boundaries, nth aspect, very private. School bus route, 40 mins to coast. \$45,000 ONO. Ph: 03-5158-7238.

MICHELAGO, MONARO DISTRICT, 40 level ac in Tinderry Ranges, surrounded by native bushlands, fenced into 3 paddocks. Three b/r home, solar elec, tank water. Fifty mins sth of Canberra. \$135,000. Ph: 06-274-7750 BH.

FIVE KILOMETRES FROM LAURIETON, mid nth coast, 8 mins from beach, 6 yr old master built BV 3 b/r home. Separate dining room, lge family/office room, en suite plus 3 way bathroom, lge outside entertainment area. Situated on level tree studded 1 ac landscaped garden, estab vegie garden & f/trees, 3 worm farms, town water, watering systems, plentiful birdlife. Large Colorbond w/shop with power & water, garden shed, rear lane access. Price \$205,000. Ph: 06-559-4445.

COONABARABRAN, 3 - 4 b/r cottage, 4½ ac. Surrounded by bush, 2.5 km from PO, lge 15 x 30m shed, c/port. Power, ph, bore, 16,000 gal r/water storage, f/trees, school bus at gate. \$82,000 ONO. Ph: owner, 068-422-105.

BUSH RETREAT—PILLAR VALEY, 216 acres, timbered, 3.6 x 3.6 self-cont 1 room cabin in r/forest, 15 mins to Wooli, 20 mins to Grafton. Advanced native planting, 4 dams & crk line. All-weather rd, new bridge. \$100,000. Ph: 066-541-121.

HUNTER VALLEY, Cessnock, charming old brick home, 4 b/rs, lots of lovely features, fireplace, leadlights. Minutes from vineyards. Large block, suit vegie garden. Ph: 049-904-777, or 02-9953-7106.

NORTH COAST, BUNGAWALBYN, lifestyle with income, 120 ac, approx 100 ac forest, certified organic (OHGA) tea-tree oil plantation, nursery. Nursery capacity 1 million seedlings/year, 8 ac plantation. Distillation plant, front end loader, machinery. Advance orders. Potential expansion, diversification. Creek, 2 dams, lge steel shed, temporary dwelling in garden setting. Remote diesel generator, ph. Secluded yet close to beach, Lismore, Casino, Ballina. WIWO \$170,000 + SAV. Ph: 066-832-518 evenings. **NIMBIN**, share in estab MO + own house: 12-sided timber yurt. Total area 320 ac incl natural bush, community land and one ha for own use. Private, well-treed spot, perm water. Nimbin 15 mins. Solar power + generator. \$58,000. Ph: 066-855-062.

DORRIGO—NORTH NSW, on elevated 800m² site, variety of trees, shrubs and 10 different f/trees providing privacy & interest in pleasant garden. Modern insulated home, fully serviced, 3 b/r lounge/DR, kitchen, family room, dble garage — all on one level. Spacious garden workshop. \$138,000 ONO. Ph: 066-572-739.

SOUTH COAST NSW, lge 3 b/r mud brick home, passive solar design, on 40 ac — 30 ac bush, 10 ac fertile crk flats. Permanent crk, pure water. Red cedar windows/doors. Gas cooking, s/c/heating, 6 panel 24V, inverter, 240V gen back-up, dbl garage, 20 mins to Bodalla, hwy, school. \$149,000 ONO. Ph: 044-743-513, 044-735-530.

WATTLE FLAT, 35 km nth of Bathurst, 70 ac well treed property with good & ample water. Partly completed octagonal stone building, sheds, good fencing. Adjoins 800 ac heritage recreation park. \$105,000. Ph: 063-377-143.

GRASSIFIEDS

PROPERTY FOR SALE NEW SOUTH WALES

BARKERSVALE NEAR KYOGLE, home on 32 acres, almost new dbl storey. All r/forest timbers, magnif palm gardens, exquisitely made, all rooms exposed beams, varnished paneling t/out, breathtaking views. Surrounded by Border Ranges Nat Pk, abundant wildlife, water supply, spring-fed dams, red soil, orchard. Room next to house 20 x 40'. Bathroom & laundry 30 x 15' black African slate and leadlight. Huge palm nursery, optional. Selling in June – deposit, it's yours – video on request. Ph: 066-875-198.

LOWER NORTH COAST, writer's retreat in secluded village on northern shores Port Stephens, 2 hrs Sydney. Peaceful bushland area, abundant wildlife. Three b/r H/plank house, NE aspect, treed, water views. Large studio (B1) with annexe overlooks water; L-shaped sunroom opens to o/plan living area with enclosed wood fire, timber kitchen, W/I pantry. Ceiling fans and all extras, sep garage. Small village has unique atmosphere and mix of city escapees. \$155,000 ONO. Diesel cruiser (5.8m), dinghy, excel mooring avail. Moving for family reasons. Ph: 049-973-048.

NELLIGEN, CLYDE RIVER, 8 mins Batemans Bay. Elevated house on dbl block, workshop/garage under. Organic orchard, vegie garden, chook house. Pool & BBQ. \$127,000. Ph: 044-786-560.

NORTHERN RIVERS. Picturesque secluded 27 ac. Permanent rocky crk, good pasture, pockets r/forest, rich soil, wildlife. Older style farmhouse, 2 b/r, sleepout, en suite, 2nd toilet/shower rm. All mod cons, elec, gas. Two Davey pumps, crk water, rain tank. Old dairy, piggery, loading ramp, new 20 x 10' shed. Suit hobby farm, horses, goats, poultry, organics, greyhounds. Town 20 mins. \$142,000. Ph: 066-333-117 after 6pm.

IN THE TOWAMBA HILLS inland from Eden near the Vic/NSW border, two left - 19 sold! Two hundred and twenty ac, long river frontage facing nth to nat pk. Half a mountain! From rocky granite outcrops to ferny lyrebird gullies, open forest and river bank. \$135,000. One hundred and twenty ac, long crk frontage, beaut soil, tall timber, some thick undergrowth. \$89,500. Both blocks have access from 2 sides, making them perfect to share among friends, rels, or whatever. Very secluded, dead-end track. Ph: 047-824-856.

NSW NORTH COAST, 40 km nth Dorrigo, various rural residential blocks from 45k. More details ph: 066-494-268, or 066-578-164.

NORTHERN NSW, BROOKLANA, 50 mins west of Coffs Harbour, mountain retreat, great views, 5 ac, large dam, property bordering onto Bo-Bo River, clean water, great swimming holes. Passive solar design home, pole frame, main b/r + 2 b/rs in loft. Terrific s/c/stove, pot belly, timber floors, 3 levels, council approved. Chook yard, shed, estab f/trees. Six km to village with school. Many more magic features. \$115,000. Ph: 066-545-303.

**DEADLINES: GR 120 – FEB 28TH
GR 121 – APRIL 30TH**

MID NORTH COAST, NSW, mud brick & timber house on 110 ac. Good all-weather access, good sheds. River frontage on the Macleay. Private setting but 3 km to school, preschool & shops. Priced to sell at \$185,000. Ph: 065-671-333.

MERRIWA, LARGE DWELLING on f/hold 40 ac river frontage with fencing, f/trees, lawns & gardens. Completely surrounded by picturesque nat pk. \$67,000. Ph: owners, 065-412-314.

THREE BEDROOM HOUSE in village near Pilliga, NW NSW. Has lge block, ph, power, plenty of water for vegies, good soil. Carpet, ceiling fans, s/c/stove, shed. Bargain. \$19,500. Ph: 076-540-170.

GRENFELL, 220 ac, home, sheds, power, ph, easy access, orchard. Mountain, forest, open grazing. Joins state forest. Top spot, friendly area, access major centres. \$130,000 ONO. Details send 2 x 45c stamps to: 'Bridgewater', GRENFELL 2810. Ph: 063-433-232.

BUSH RETREAT, NAMBUCCA VALLEY, mid nth coast, 27½ ac, timbered, crk, 45 mins to main town. \$48,000. Ph: 044-651-505.

HOUSE FOR SALE, NORTHERN NSW, 15 km from Nimbin. Spacious timber & rock, 2 storey, 5 b/r. Five ac, nth aspect, panoramic views. Large solar system, shed, c/port, tanks. On well estab community. Walk to primary school. \$93,000 ONO. Ph: 066-843-946.

BATHURST AREA, 300 ac, 3 good houses, 2 brick, 1 Hardiplank. Beautiful river & crk frontage. Trout fishing, gold panning. Established 50 tree orchard, 2 lge farm sheds, sml glasshouse, smokehouse, coolroom etc. Sofala 15 mins, Bathurst 45 mins. Many possibilities – group living, extended family, farmstay. \$310,000. Ph: 063-377-121.

DORRIGO AREA, URGENT SALE, 10 hectares r/forest, home, power, ph, septic, perm crk, 50 peach trees. \$100,000 ONO. Ph: 066-578-048.

QUEENSLAND

PROSTON SOUTH-EAST QLD, 3 ac, no trees, town water, power & ph, close to Boomdoomba dam, fishing & water sports. Nice quiet town. \$10,400 ONO. Ph: 071-632-860.

FORMERTOWN MARKET GARDEN, Mt Perry, QLD, 6475m² with crk frontage. \$17,000 ONO. Ph: 091-854-605.

BUNYA MOUNTAINS: 2.14 ha at Saddletree Creek, timbered block sloping to dry creek on south. Road frontage with level area, Telecom. \$22,000 ONO. Ph: 09-332-7844 after 6pm WST.

MALENY AREA, 3 b/r Qld'er, solar & gas, estab orchard, on 200 ac community. \$90,000 ONO. Ph: 07-5496-1685.

KOGAN, 45 mins W of Dalby, 1280 ac bush block. Caravan in concrete floored shed, dams. Plenty of wildlife and birds. Very quiet and secluded retreat. \$65,000. Ph: 071-646-201.

CRYSTAL WATERS PERMACULTURE VILLAGE, f/hold title 5000m², 3 b/r timber home with sleepout. High ceilings, verandahs 3 sides, faces nth, lovely aspect, 5000 gal tank, gas, power, ph. Over 100 fruit & nut trees, fully irrigated by reticulated water system, lge shed. Maleny ½ hr, Conondale 10 mins. \$139,500 ONO. Optional school bus run - \$57,000. Ph: 07-5494-4841.

RURAL BEACHSIDE PARADISE, town water, rich soil, 2 part-furnished houses, adjoining tropical orchard, SE Qld's best fishing & boating. One house rented. Private sale. Owner relocating overseas. Ph: 04-1938-5384.

BLOOMFIELD RIVER, GREATER DAINTREE, far nth Qld, 30 ac with ocean views, bordering wilderness. Road access & elec avail. Suitable retreat or cabins. \$130,000. Ph: 066-886-259.

KONDALILLA, SUNSHINE COAST HINTERLAND, private & unique ½ ac adj r/forest, only mins from nat pk. Contemporary 2 b/r home, timber interior, lge verandahs & many extras. Spring-fed crk & organic gardens. \$169,000. Ph: 066-886-259, or 074-457-934.

SUPERB FRONTAGE & direct access to Bruce Hwy. Private sale. Few mins Caboolture & Bribie Island turn-off. Approval for wholesale nursery. Suitable: motel/fast-food/restaurant. Power & water. With old house suitable office/storage. 7049m² – almost 2 ac. \$140,000. Ph: 07-5498-2236, fax: 07-5498-2230, mobile: 0414-767-145.

BAFFLE CREEK/ROSEDALE, 53 acres, 16 ft c/van, power/ph connected. Two dams, 2 x 2000 gal water tanks. Tractor & implements. \$80,000 ONO. Ph: 079-791-038.

HISTORICAL MOUNT MORGAN, 2 x ¼ ac residential blocks, 1 hr to coast. Lovely outlook. Located on tourist route. Would suit cottage industry. Power & water avail. \$15,000 ea ONO. Ph: 08-263-7055.

ATHERTON TABLELANDS (naturally air-conditioned). Timber cottage, walking distance to Millaa Millaa shops & magnif waterfalls. Lush tropical garden, 5 x 10 m shed. Large outdoor undercover area. Cairns 90 mins drive. \$85,000. Ph: 070-972-257.

HERBERTON FNQ 15 km, 40 ac f/hold bush, 2 houses, river frontage, power, ph, school bus, spectacular landscape, chemical-free, private retreat, wildlife. Urgent sale. \$120,000 ONO. Write: Martello, 170 Gale Rd, MAROUBRA 2035.

ORGANIC OASIS, privacy & peace, 85 f/hold ac, on 2 titles, surrounded by state forest, rich red scrub soil. Income producing organic orchard interplanted with neem trees. Herb/vegie garden. Spring-fed dam. Lovely old timber farmhouse with 12 ft verandah + self-cont 2 b/r cottage. Sheds, w/shop & shadehouse. Gympie 15 mins, Noosa 1¼ hrs. Offers around \$198,500. Ph: owner, 07-5483-1450.

*For the new 10 digit phone numbers,
preferred format is 00-0000-0000.*

*Unless a mobile number
019 or 018 or 041.*

GRASSIFIEDS

PROPERTY FOR SALE QUEENSLAND

KURWONGBAH, Qld, 30 km nth of Brisbane, 5+ ac, pool, paddocks, stables, dam & bushland. Four b/rs, study, huge pine kitchen, spa bath & en suite. Workshop & deck. Ideal for frog lovers, spend each morning watching parrots! \$285,000 ONO. Ph: 041-973-7617, or fax 07-3285-5130.

RENT/BUY/SWAP BRISBANE AREA, 2 storey house, ecological village, Bundaberg region. One ac f/hold, 350 ac commonland. Four lge b/rs (built-ins) + craft room + office clinic. Large kitchen, verandahs, outdoor living area, irrigated, tank water, solar hot water, estab gardens, power, ph, tar sealed roads. Five mins town of Gin Gin. Ph: 071-572-012.

HERVEY BAY, 1 1/4 ac, 9 x 9 x 4.2 m shed, 3 phase power, water, phone to shed. Fresh water canal. \$83,000. Ph: 042-564-176, 018-404-541.

FLAGGY ROCK, CQ, Colorbond 9 x 6m shed on 12 1/2 ac. Power & ph connected. Fully fenced. Ideal fishing & crabbing area. Priced to sell at \$45,000 ONO. Contact: ph, 071-577-546 AH.

SUNSHINE COAST HINTERLAND, Eudlo, Qld'er, 1 ac red soil, quiet area. Two mins Brisbane Rail, 15 mins Uni. Views, partly renovated. Rented \$175 week. \$155,000. Ph: 07-3399-8285.

LOGAN VILLAGE, BRISBANE, western red cedar cottage, 5 timbered ac, summer crk, cathedral ceilings, polished floors, combust & gas stoves, loft, timber kitchen, dble c/port. Rented \$160. Railway 10 mins. \$159,000. Ph: 07-3399-8285.

BUNDABERG AREA, ROSEDALE, 60 km nth of Bundaberg, 40 ac fenced into 5 paddocks, 4 dams, crk. Three b/r house, front & rear verandahs, b/rs carpeted, remainder ceramic tiles. Phone, power, solar hot water, 5 KVA diesel standby generator, 15,000 gal r/water tanks, brick/gas BBQ, 2 bay c/port, lge machinery shed, tractor with slasher & grader blade, f/trees, over 100 young mango trees. Ten mins from Rosedale, primary & secondary schools, school bus. Vendor finance avail. \$140,000. Call: 071-565-236 after 6 pm.

VICTORIA

AVENEL (NEAR SEYMOUR), escape to the country. Delightful 2 lge b/r with lock-up garage. Larger than usual rear garden area. Quiet central location. Scenic hills. Immaculate presentation & lge lounge, Heat Charm & reverse cycle air cond, elec stove. Reduced to \$65,000. Ph: 03-5796-2258. Perfect for retirees.

APOLLO BAY, CHEMICAL FREE 15 yrs, 44 ac, 5 mins from town, beach & bush, 2 1/2 hrs from Melbourne. North and NE facing. Fern gully, 50" r/fall, dams. Power & ph avail. School bus. Active friendly community. Views. \$135,000 ONO. Ph: 03-5237-6987.

WIMMERA, 13.5 ac of fertile land, easy to manage, close to town, low rates and friendly shire. \$14,000. Ph 03-5385-2776 AH.

PLACING AN AD?
See page 72 for details

NARIEL, NE VICTORIA, 3/4 hr Corryong, 3 b/r cottage on 2 1/3 ac, 3 titles. Adjacent to trout stream. Suit fishing, bushwalking, bird watching clubs, etc. Artist's retreat. Ph: 03-5152-3912.

COLAC DISTRICT PROPERTY, Stonyford area, 51 ac (20 ha approx). Warm volcanic land with abundant wildlife. Excellent 3 b/r BV home (6 y/o) in private but convenient setting. Well sheltered land & lagoons, pasture, trees & shed. Abundance of water. Price \$110,000. Ph: 03-5231-1419 AH.

ST ARNAUD, 20 ac secluded block at end of winding dirt track. Bordering state forest on 3 sides, but only 10 mins from town, 2 dams, sml shed, building permit avail. Plenty of trees, leveled house block. No power, but ideal area/aspect for solar. \$20,000 or \$22,000 on generous vendor's terms. Ph: Chris, 03-5423-9200.

GIPPSLAND SOUTH, YANAKIE, beach, your own with no people, + Wilsons Promontory Nat Pk side bndry. Pedestrian access, a very rare 2 1/2 ac block, sandy loam with water close to surface. SEC supplied. \$62,500. Ph: 03-9560-7689.

BULDAH, FAR EAST GIPPSLAND, 19 ac in remote but picturesque valley. Mostly cleared, adjoins state forest. River frontage, 2 dams, ample sheds, fully fenced, 2 b/r kit home. Full solar power, s/c/wood heater, gas stove, lge vegie garden. For photos and more info ph owner for internet address. \$95,000 ONO. Ph: 03-5158-7250.

BRISBANE RANGES, 40 km nth of Geelong. Modern 2 b/r cottage + lge studio/bungalow on 20 ac bush with abundant wildlife. Great views to You Yangs and Corio Bay. Land for wildlife. Organic orchard and vegie garden, hot and shade houses, 4 dams. \$152,000. Ph: 03-5360-8319.

EDENHOPE/APSLEY, 320 ac, big red gum country, grazing, cereal, safflower etc. Sown to phalaris, rye grass, clover, 3 paddocks, sheep yards. \$113,600. Ph: 03-5586-5221 AH.

APSLEY, VICTORIA, relocatable 3 b/r home on 1 1/2 ac. Nice views, on town bndry near golf course. Current rental \$325 per mth. \$29,500. Ph: 03-5586-5221 AH.

WINCHELSEA, 5 ac, services, soil test, BP fenced, trees, northerly aspect, \$49,000 ONO. Ph: owner, 03-5265-6158, or 015-836-031.

BENAMBRA, GIPPSLAND, Vic, 20 ac magic r/forest on river. \$20,000 ONO, or 1/4 shares \$5000. Ph: 03-5345-8272.

BALLARAT AREA, LINTON. Leave the big smoke, be self-sufficient. Large 4 b/r home on 20 rolling treed ac. Home comprises en suite to master b/r, all new carpets, not one cent to be spent on this house. Town water, dam. Two mins from Linton township, school bus at door, close to public transport. Plenty of shedding & stockyard. Don't miss out on this bargain. Owners must move. \$125,000 ONO. All offers considered. Ph: 03-5344-7418, Toni & Alan.

BEAUFORT, reliable r/fall area, 20 undulating ac. Comfortable 3 b/r house, power, 2 dams, windmill, r/water tanks. Large poly house, berries & f/trees. Machinery shed & workshop. Chook runs, low rates. Half hr to Ballarat. \$89,000. Ph: 03-5349-2318 after 6 pm.

FAR EAST GIPPSLAND - Dellicknora. Three b/r home on 187 ac. Permanent river, partly cleared. SEC, ph, bus to primary/secondary schools. \$150,000 ONO. Ph: 03-5154-8264.

WOODEND, 5 ACRES. One hr from Melbourne. Comfortable home set in peaceful forest; 3 b/r + study. Coonara wood fire. New concrete water tank & guttering. Sheds incl insulated workshop with office space. Garden incorporates estab orchard, no-dig vegie patch, newly fenced lily pond, dam, bore, 2 tanks. \$150,000. Ph: 03-5427-2520.

NORTH-WEST VICTORIA. We must sell our lovely home. It is an old & gracious solid brick with shady verandah. It is huge with 6 b/rs & lge living areas. There are tall trees, native birds & 13 ac of freedom. Town water & power are connected. The location is private but all amenities are close. All this and more for \$53,000. Yes \$53,000. Call me AH on 03-5037-6477.

TASMANIA

TIMBER & MUD BRICK, 2 storey house, 17 ac, railway carriage, access to river frontage, 4 km sml town. Write: House (GR 119), C/- PO Box 242, EUROA 3666.

NORTH-WEST TASMANIA, desperate sale, secluded 50 ac bush block with river frontage, 2 ac ex-market garden, 3 ac river flats. Rustic 4 b/r w/b house with s/c/heating. Two spring-fed dams. Power, ph and on school bus route. Close to Ulverstone. \$100,000 ONO. Ph: Rory, 047-587-762.

GLEN HUON - 15 ac undulating pasture, magnif nth views to Huon Valley. Power, Telstra at bndry. \$38,000. Ph: 03-6228-4698.

HYDRO ELECTRIC - SELF-SUFFICIENT living, 2000 watt winter maximum, 200 watt summer (drought) minimum generating potential, 50 to 5 KWHs approx each day. Remote 40 ac northern aspect. Undulating pasture, with flat and steep bush, dam sites, over 30 ac with very pure high pressure gravity-feed watering potential. Super views, approved home site, 60 mins Launceston, nth Tas. \$49,000. PO Box 2077, LAUNCESTON 7250.

TASMANIA, approx 5 ac block in paradise near Sheffield. A mtn view that will knock your socks off. Ph: 03-6229-7994.

AAAAA TASMANIAN rural self-suff, 1.8 ha pasture, 17 km west of Burnie airport (Wynyard), 2 km from Bass Highway, insulated 3 b/r w/b house, circa 1910. New iron roof, Baltic pine ceilings, ph, elec, crk, windmill, rich volcanic soil, rabbit-fenced garden 30 x 70m, 30 f/trees, 11 sheds, \$85,000. Randolph, 03-6231-4581.

For the new 10 digit phone numbers,
preferred format is 00-0000-0000.
Unless a mobile number
019 or 018 or 041.

GRASSIFIEDS

PROPERTY FOR SALE TASMANIA

HUON VALLEY: 3 residences on 5 1/2 ac of forest; 3 b/r home Australian design with pine, myrtle int; 2 b/r home 1 yr old, immac cond; 2 storey chalet, ideal for teen retreat or studio. Sheds, kids' tree-house, 2 dams, ample r/water & wood. Orchard, various f/trees, strawberries, boysenberries, raspberry, blackcurrants & 3 types nuts. Fifteen mins from closest town, only 1 hr from Hobart. Magic views overlooking islands with private access to secluded beach. Good swimming, fantastic for diving, oysters, crayfish, a fisherman's paradise. Reluctant sale. \$189,000 ONO. Ph: 03-6297-8257.

UPPER ESK, TASMANIA, 56 ac of fertile river flats comprising self-cont guest house, cabin, lodge & main house. Currently operating as licenced accom providing part-time income supplemented by cattle farming & self-suff. Tranquil alternative lifestyle, mtn water, fresh air, clear river & abundant wildlife. Established vegie garden, raspberries, currants & apples. Extensive garden, fishponds, BBQs, museum & Clydesdales. Ideally suited for health retreat, church commune, backpackers, seminars etc. Potential for deer, ostrich or fish farming. Owners selling for health reasons, photos avail. Price \$325,000. Ph/fax: 03-6377-1153.

HOLIDAY HOME for sale, 3/4 ac, trout fishing close, WIWO. Hot water system, bath, shops walk dist, 1st class upholstered furniture, wood & elec stove, TV, entertainment unit, 100s records & tapes, loudspeakers, elec fan, fridge, big mirror in double b/r, 2 wardrobes, 1st class lamps & curtains, bed & living room, solid curtain divider, kitchen/living area. Indoor clothes hoist, larder, storeroom, 2 lge sewing rooms, lge new washing machine. Most of house carpeted, most kitchen appliances, plenty of storage jars, bedclothes etc. Dozens of big glass plates (table), many firewood buckets, big firewood shed, contacts to good firewood dealers. Easy maintenance front & back garden (spectacular!) with most healing plants incl comfrey and dandelion. Stone wall retained lge parking space. Surrounded with caring neighbours. M K Verner, 16 Murchison St, ROSEBERY 7470.

TASMANIA. Are you feeling fed up with everlasting heat? Consider this spacious 3 b/r home in pretty little Ringarooma, 20 mins from Scottsdale. Gas & wood heating. Plenty b/ins. Family size kitchen, New Baltic pine bathroom. New HWS. Ten foot pressed tin ceilings. Carpets, curtains, all in good order. Garage. Walk to shops, butcher, store, school & pub. Some furn incl. \$45,000. Ph: Owner: 03-6353-2135.

COMMUNITIES/SHARES

BYRON HINTERLAND, 9 ac share, excel soil, views, spring water, forest. \$16,000. Ph: 066-856-083, 018-663-431.

KINKIN, SOUTH-EAST QLD, 1/3 share in 17 ac, prime fruit growing, perm spring, hill country, 40 mins Noosa, access prepared, ideal building site. \$20,000. Ph: 066-842-032, 066-847-614.

**DEADLINES: GR 120 – FEB 28TH
GR 121 – APRIL 30TH**

ECOTOURISM/SELF-SUFFICIENCY or 'patch of paradise' in bush, 20 mins from Nimbin on 360 ac surveyed, leasehold multiple occupancy. North-facing, sloping 5 ac, with 5 dams & complete permaculture infrastructure from end to end, ie 8 ft high swale system. Sounds daunting – just add trees. Soon coming – sealed rd to doorstep. Regrettable sale \$45,000. Ph: 066-897-321 most evenings.

MUD BRICK HOME built to lock-up. Architect designed, substantial pole frame, loft, verandahs. Fuel stove, HWS, combustion heater, solar power. Very livable now! Half share 100 ac. Dam, crks, tanks. Privacy. Local village/school 15 mins, Casino 45 mins. \$80,000. Ph: 066-843-881.

FIVE ACRE SHARE, 330 ac legal MO, 20 mins from Nimbin, 1 hr from coast. Beautiful cottage, 2 b/rs, sleeping loft, solar hot water/lights, gas stove/fridge, studio, c/port, shed, tank water, gravity-fed dam water, f/trees. No cats/dogs. Public school adjacent. \$65,000. Ph: 07-3287-6401.

FAR NORTH COAST NSW, 1/13 share in 800 ac legal MO, bordering Bungalung Nat Pk. Beautiful 2 b/r all-timber house on 10 ac private use. Secluded forest setting. Abundant wildlife, water, f/trees, lge work shed. No cats or dogs. \$89,000. Ph: 066-822-748.

NIMBIN, 1/10 share, 52 ha, council approved MO. Beautiful rainforest environment, 2 b/r accom & studio on 2 ha, solar power/hot water, estab f/trees, 4WD access. \$70,000. Ph: Steve, 066-282-034.

NORTH COAST NSW, 8 km Nimbin, 1/10 share in 136 ac estab community, 7 1/2 ac surveyed for personal use. Panoramic views Nimbin Rocks, frost-free, mix arable pasture & regenerating bush, 6 x 3m livable timber shed. \$34,000. Ph: 066-891-814, 02-9712-3519.

CHRISTIAN SETTLEMENT, finance avail, organics, natural health, protestant, Kingdom... on Earth. Box 629, BYRON BAY 2481. Ph: 018-663-431.

ROLLANDS PLAINS, MID NORTH COAST, 1/7 share 170 ac, 5 ac home site, MO approved, nth facing, views, 15' c/van, r/water tank, new shed, perm crk, reg r/forest, 2 massive dams/lakes, estab f/trees & kiwis. \$25,000. Ph: 02-9356-2948.

FAR NORTH COAST, 35 km NW Lismore, beautiful solid spacious home. Wide verandahs, elevated position, extensive views, 4 ac, u/house garage & workshop. Organic gardens, f/trees, complete privacy. Power, phone, cabin, u/cover c/van. Secure strata development. School buses. \$159,000. Ph: 066-337-033.

NEW AGRICULTURAL COMMUNITY of adults based on physical work and personal growth. No drugs, TV, alcohol, tobacco, meat. Yes: music, theatre, poetry, communal house. For more details send stamped SAE (business sized) to: Phoenix Rising, PO Box 908, GYMPIE 4570.

BOMBALA AREA, 1/6 share in 80 ac, 5 ac home site, balance community land. \$2000 deposit, balance \$3000. Ph: 065-712-958.

WARRAWILLAH NSW 35 km. Three x 1/9 share/ 650 ac mostly forest. Large substantial 2 storey 3/4 complete, pole construction with mezzanine, crk & beautiful aspect. Good soil. Tender. Ph: 03-6239-9712.

BUSINESSES FOR SALE

MACKAY, 2 mobile catering outfits: one \$10,000 firm and other \$5000 ONO. Ph: 018-775-743 or AH 8pm 079-588-102.

NEW ZEALAND – WHANGAPAVAOA, 1/2 hr nth Auckland, herbal dispensary – established practice, growing area, close to shops and school, also avail house to rent in private bush setting – owner returning to Australia to be with family. Dispensary \$5000 + stock approx \$7000. House rent neg. Please ph Ruth Free: Auckland: 09-424-3991 BH, 09-424-1302 AH.

PROPERTY WANTED

SMALL ACREAGE WANTED, 5-20 ac between Bundaberg & Whitsunday Islands. To \$20,000 for retirement. Contact: James, PO Box 189, ST PAULS, NSW 2031.

MUD BRICK COTTAGE, 3 b/r, on sml acreage, close to Bendigo. Ph: Sue, 03-5448-3027.

CHEAP LAND ON SOUTH (FAR) COAST: Dear friends, I'm looking to buy a piece of land with a c/van, cabin or house on it (cheap) on vendor terms. I will be able to pay only a small deposit, but am genuine & have references & would do this agreement through a solicitor, & would pay good interest rates. I sincerely hope someone can help, even if I can only find somewhere I can rent for five years, then I can be in a sounder financial position to buy something else. Thank you, love & happiness to all. Write to: David Easterbrook, 1/42 Church St, WOLLONGONG NSW 2500. Ph: 042-275-061.

FOR RENT

TO RENT: COTTAGE on Burrum River, F/F, suit 1-2 people. Will require some work in lieu of rent. Must like animals & land. Hervey Bay. Ph: 071-295-452.

RAYWOOD, 30 km NW Bendigo, Vic, on wool/grain property. Lovely 2 rm brick cottage surrounded by sml orchard. Beautiful views countryside yet private. Cottage is comfortable with open living area incl wood fire. LPG appliances. \$75 pw, incl elec. Further details: Hunter Gill, 03-5442-1100 BH, 03-5443-8939 AH.

HOUSE TO RENT OR SHARE. Brunswick, Melbourne, in need of repair & person/s to live there can contribute gardening & other work. Lovely old 3 b/r house. Fruit & gum trees. Close to trams, trains. May be rented as share with owner who lives part time away or rented whole. Rent \$200 pw neg. Ph: 03-9480-1754.

**Make Your Editor Smile –
Punctuate!**

GRASSIFIEDS

FOR RENT

BALMORAL VILLAGE: lower Sthn Highlands, 1½ hrs comfortable drive Sydney GPO. Secluded 1½ b/r handbuilt home in a very pleasant & private bush setting. \$140 pw. Sorry no pets. Ph: Glenda, 017-116-809.

WANTED TO RENT/CARETAKE

CARETAKE – RENT OR LEASE, farm on property Merriwa/Denman area, long term, suit horses. Honest & reliable references supplied. Ph: Mrs McCue, 018-972-217.

MATURE AGE ARTIST (female) and son seeking long-term, affordable housing. Prefer private bush or rural setting nth NSW or New England area. Elsewhere considered. Ph: 067-712-709.

BUNDABERG AREA, bush spot, own camper. Lady needs quiet, power. Ph: 017-838-756. PO Box 960, TWEED HEADS 2485.

YOUNG, HARDWORKING COUPLE seeks home on sml acreage to caretake, rent or work with you. Looking to be self-suff. Eastern Australia. Paul & Michelle. Ph: 071-243-724.

EXCHANGE

WORLD CRUISING YACHT, well known in South Pacific, solid fibreglass, all popular features, +, +. Sell or exchange for real estate NE NSW, SE QLD. POA. Ph: Paul or Phyl, 015-766-440.

MUDGEES AREA exchange 25 ac, fully fenced, 3 dams, 240 GPH bore unequipped, 5 r/water tanks, 40 x 20 shed, dbl roll door, power c/port, 2 storage sheds, very neat 3 b/r home, big lounge room, modern kitchen, wood heater, tiled bathroom, immaculate. Want to exchange for 2 or 3 b/r home on sml bush block, must have power & good water. Value at \$135,000. Will consider any area to public transport. Ph: 063-741-994.

HELP OFFERED on EF property in exchange for \$60 and accom. Farm tools and equipment avail. Skills, resume etc avail. Permaculture, monoculture, marketing, mud building, painting, fencing, craft and small animal care. Male, 51, hetero, n/s, n/d, n/r, s/d, nature lover, bush tucker, Capricorn, wacker! Property within 4 hrs of Melbourne. Ph: Mr P M Anderson, 14 Joel Crt, HEATHMONT 3135. Ph: 03-9879-7205.

WANTED

ACCOMMODATION WANTED, Seventh-Day Sabbath Keepers, mature lady & teenage son keen to learn self-suff skills & organic gardening. May suit supportive retired couple desirous of sharing skills and possibly working on a craft cottage industry. Would also consider rental/ caretaking (Any area). Please write: 'Accommodation', PO Box 144, GIN GIN 4671.

TASMANIA – have you moved there? Please tell us your experiences. O'Kenny Family, 92 Sternberg St, BENDIGO, Vic 3500.

PLACING AN AD? See page 72 for details

DELEGATE AREA, SE NSW. Help wanted. Board, lifestyle & use of land in exchange for part-time work. Large, very picturesque property on magnif river. Too much work for young professional family living a semi-alternative lifestyle on site. Seeking part-time help. Envisage long-term arrangement with right people. Details neg. Ph: 064-583-930.

WORKWANTED, TRAVELLING CARPENTER, self-contained. Heading sth from Nowra December to West Coast, via Vic, SA. Experience – pole houses, domestic construction. No job too small. Lic No 59947c. Mobile ph: 019-397-725.

JERUSALEM ARTICHOKE TUBERS to buy. Ph 097-724-279. Z Sieczka, Box 823, MANDIMUP, WA 6258.

GRANNY. We would love to adopt a granny for a couple of days a month, so I can get things done on the farm. Please write to: Kerry, RMB 4130, COLAC, Vic 3249.

WANTED, PERSON WITH VAN to share workload on 2½ ac property near Newcastle. Share facilities, power, water, in return for gardening lawns etc. Some carpentry needed but not essential. References reqd. Ph: 049-829-800, or PO Box 5, MEDOWIE 2318.

HANDCRAFTS

CANDLE MAKING KITS – rollup beeswax, \$25.50 incl postage Australia. Send money order for prompt delivery to: Eden aromatics, 14 Station St, PAKENHAM 3810. Ph: 03-5941-3698.

WAX SUPPLIES FOR ALL CRAFTS, candle, beeswax, sealing, sculpturing, colour dyes, wick, polish and advice. Ring or write to: Handful Wax, PO Box 87, LAKE MUNMORAH 2259. Ph: G J Keith, 043-581-224 (7 days).

CRAFT WORKSHOP VIDEOS: Learn at home at your own pace from your personal, highly qualified instructor. VHS titles incl spinning, weaving, beadwork, basketry, applique, tatting, knitting, crochet, lace making, felting, fabric painting & more. For full catalogue send long SAE to: Quick Spin Wool, Dept GR, RMB 1215, Shelford Rd, MEREDITH 3333. Ph/fax: 052-868-224.

BEADS! BEADS! BEADS: Unique selections of handmade glass, metal & wooden beads. Also findings, threads & kits avail. Cost \$8 for samples, colour copy & info. Write to: Tsunami, PO Box 29, MARGARET RIVER 6285.

THREAD BUNDLES, stranded cotton in bundles of 100 x 8 m skeins in 50 assorted colours. Shades matched to DMC – \$29 post free. The big bundle of 240 colours – \$60 post free. 50 (25pr) wooden lace bobbins, torchon style popular design, excellent for beginners \$49 post free. Price list avail. B/card, M/C, Visa, M/O, Chqs. Arty & Crafty, PO Box 40, DAW PARK 5041. Ph: 08-277-3763.

NATURAL COLOURED WOOL – scoured and carded, ready to spin! Variety of shades, in compact rolls. \$25 per kg + postage. For stocklist send SAE to: Shiloh Easy Spin Wool, PO Box 295, DRYSDALE, Vic 3222. Ph: 052-512-497.

WOOL, SCOURED AND CARDED into batts, perfect for pillows, doonas, quilting or spinning. \$17/kg + freight. PO Box 2117, ASCOT 4007. Ph/fax: 07-3268-6849.

FOOD AND KITCHEN

BEE POLLEN, no additives, 450g sample pack \$9, 1.9 kg pack \$32.50, 4.3 kg pack \$65, 14 kg drum \$175. Prices incl p&p. JM Read, 8 River St, MURRAY BRIDGE, SA 5253.

DELICIOUS RECIPES ON INTERNET. www.ozemail.com.au/~coeliac

HOME STONE FLOUR MILLS – mill your own stoneground wholemeal flour for cakes & bread at home with a Retsel Little Ark stone flour mill. Endorsed by Housewives Assoc. Write for catalogue: Retsel Distributors, PO Box 712, DANDEMONG 3175, encl 3 postage stamps. Ph: 03-9795-2725. Distributor enqs welcome.

MISCELLANEOUS

COLLECTABLES. Things you see at rural museums, we sell. Gunnedah Country Collectables, PO Box 195, GUNNEDAH. Ph: 067-421-499 BH. Mobile: 015-213-031.

SULKY AND WAGON PARTS: wheel rims, frame, steps, axles. Ph: 067-421-499, mobile, 015-213-031.

BE YOUR OWN BOSS, 3 different almost unknown profitable businesses you can run from home. No opposition. I've retired, so the secrets can be yours. No canvassing or mail order. Start with \$50 capital. Details free. Send SASE to: Peter Gardner, 13 Harlequin St, (PO Box 571), LIGHTNING RIDGE 2834.

TRACTOR, KUBOTA B6000, diesel, 4WD, diff lock, 3 speed PTO, 3PL, fresh service, factory rotary hoe. \$3000 - \$3400 incl sales tax. Other models avail. Ph: 07-5498-2236, 04-1476-7145.

AGA FOUR-OVEN, solid fuel cooker, good order. \$3500 ONO. Also, AGA 2-oven cooker, in good order \$2000 ONO. Washing machine, 32V \$150. Ph: 03-5571-2670 AH.

DUNLITE GENERATOR, twin cylinder diesel, 6.5 KVA, 25 amp continuous rating, only worked 350 hours. Self-contained, fully enclosed on trailer, remote switch will power complete home, fully instrumented incl wiring plans, single phase, excel condition, bargain \$5500. Gympie. Ph: 07-5483-3900.

DIY WITH SOLIDSTAT THERMOSTAT, incubators, aquariums, nurseries, brewing. Precise accurate and reliable. Jupiter Technologies, PO Box 34, CORAKI, NSW 2471. Ph/fax: 066-832559.

Please print your ad clearly
so we can do likewise

CLASSIFIEDS

MISCELLANEOUS

LEAKING TANK? Easily repaired with Pioneer Tank Liner, 10 year guarantee. Ph: Andrew, 015-340-688.

WATER TANKS, 5000-100,000 gal. Assembled on site, DIY or fully installed, 20 year guarantee. Winner Australian Design Award. Ph: Andrew, 015-340-688.

HOW TO SAVE A FOREST. Gummed labels to re-use envelopes. \$10/200. Bulk prices for fund raising \$83/10 packs of 200. Send cheque/MO to: Green Harvest, 52GR Crystal Waters, MS 16 MALENY, Qld 4552.

'ETERNITY', free book on life's meaning. Send SAE to: Eternity, PO Box 636, LITHGOW 2790. No other literature unless requested.

GREYWATER SYSTEM, designed by permaculture graduate, laboratory tested & successfully trialled by local council (Lismore nth NSW). The system incorporates a sand filter & evapo-transpiration/seepage distribution system. Simple to install (assistance avail in Northern Rivers area). Plans & specifications avail \$50. Phone assistance to purchasers. Ph/fax: 066-891-703.

TRIDENT TIPIS. Professional workmanship, quality materials, traditional designs. For brochure, samples and prices write to: 'Earth Mother Craft', Lot 107 Cedar Crk Rd, via MILLFIELD 2325. Ph: 049-981-659.

INCENSE MAIL ORDER, top quality, many brands and fragrances. Ring/write sample list: Kabbalistic Pathway, 99 Main St, CROYDON. Ph/fax: 03-9723-8393.

TIPIS, 10'-22', from \$460. Colonial tents, tarps, awnings, annexes, canopies, tonneau covers, swag rolls. Leather, deerskin, suede clothing, any size, any design, yours or ours. Western & Indian style fringed gear a specialty. Wholesale prices. Bojo Products, BENALLA. Ph: 057-622-145. Tipi hire avail.

NATURALSKINCARE PRODUCTS, handmade soaps & candles. Send SAE for catalogue of over 120 products. Forest Edge, 242 Albert St, MARYBOROUGH 4650.

LIVESTOCK

OUTDOOR PIGS, Wessex Saddlebacks. Weaners now avail in Mackay, Nth Qld. Phone Donna Trask: 079-583-127 or 014-666-852.

BROWN CHINESE GEESE, purebred. Ideal for controlling grass/weeds in gardens, orchards, vineyards. \$30 each. Ph: 03-5495-2363.

LOWLINE (cattle), unregistered females from \$600. Ph: Richard, 067-373-614 after 7pm.

MILKING GOATS - first lactation, farm reared, healthy does at affordable prices. Ph: 03-5625-4164.

GOOD HOME WANTED for Large Black and red Durloc pigs. Very gentle, 2y/os. Ph: 03-5467-7209.

DEXTER CATTLE - small, hardy, dual purpose, ideal for smll landholders. Quality registered & commercial animals for sale. Ph: Lynn Cooper, Talisker Dexter Stud, 03-9761-9012.

DEADLINES: GR 120 - FEB 28TH
GR 121 - APRIL 30TH

COURSES

PERMACULTURE DESIGN COURSE, '97. Date: Sat 29 March - Mon 7 April 1997. Venue: 'Willuna', Chiltern, NE Victoria. Tutors: Vries & Hugh Gravestein. This is a certificate course held on our property. For enquiries please send SAE to: V Gravestein, RMB 1130, CHILTERN 3683.

INTRODUCTION TO BIODYNAMIC Agriculture. Practical one-day course for farmers & gardeners. April 6 at Nirvana Organic Farm, Heathfield (Adelaide Hills). \$50 incl lunch & notes. \$85 couple. Enquiries & bookings: 08-8339-2519.

COB EARTH BUILDING WORKSHOPS. Sculpture your house from earth. Learn to make niches, shelves, etc, also cob bread ovens. Five-day or weekend courses. March 22-23, April 26-30, May 24-28, June 21-25, July 12-13, Aug 16-20, Sept 13-17. Contact: Edible Landscapes, Brisbane, ph: 07-3870-3872 for brochure. See GR 109 for article.

DESIGN SUCCESS is yours with personal tutor; support staff; up-to-date plain English information; illustrations; project ideas; videos; computer disc version and fast feedback via Email or Snail mail. Send SAE. PERMACULTURE VISIONS (R) - specialists in Personal Permaculture Tuition - 280 Cordeaux Rd. MT KEMBLA VILLAGE 2526. Email: askpv@ozemail.com.au Internet: <http://www.ozemail.com.au/~askpv/index.html> Live each day in a greener way.

HERBAL MEDICINE. The School of Herbal Medicine, established in Australia in 1985, offers a one year home study course. For details, write to: PO Box 2310, TOOWOOMBA 4350.

DOWSING - STUDY AND EXPERIMENT with dowsing, radiesthesia and radionics at home! A course in radiational techniques for health and agriculture, including DIY equipment plans. Free detailed brochure. Distance Learning by Design, 22c/100 Bundall Rd, BUNDALL Qld 4217, Australia. Ph/fax: 07-5539-9633.

CORRESPONDENCE STUDIES. Diploma and certificate programmes, professionally recognised. Learn for personal interest or business practice. Select one brochure from: Aromatherapy, Vitamin and Nutrition therapy, Traditional Folk Medicine, Animal Medicine (The 'Green' Vet), Psychic Healing, Pre-school Childcare (Nanny-Minder), Safety and Security Counselling, Personal Psychic Development, Traditional Wicca. Wiccan Home Studies, PO Box 138, SURRY HILLS 2010. Ph: 02-9319-6166 business hours only.

To avoid disappointment ensure
your ad meets our deadline

GARDEN AND ORCHARD

BAMBOO PLANTS AND POLES, 250 species for all uses. Send \$4.50 in stamps for catalogue to: Bamboo Australia, 330 Kenilworth Rd, EUMUNDI 4562.

TOBACCO SEED. Organically grown (Virginian), cultivation & curing notes incl. Send \$5 to Lyn O'Brien, C/- PO, BARMAH 3639.

TREE GUARDS all shapes/sizes from under 10 cents each. Bamboo stakes & weedmats. International Reforestation Supplies, 510 Bellbird Rd, BAIRNSDALE 3875: Ph/fax: 051-579-404.

COMPANION PLANTING CHART. Over 90 vegetables, herbs & fruits, including plants as insect repellants. Sow When Chart. Suggested sowing times for 100 vegetables, herbs & flowers. Mail order \$5 each + \$2.50 p&p (up to five copies). Plum Products (G), PO Box 120, BRUTHEN, 3885.

RAINFOREST SEED COLLECTORS national link-up. Buy & sell local seed. Our newsletter has lots to offer. Local seed grows better & doesn't pollute your gene pool. Quarterly newsletter subs \$20, conc \$10. Offer local seed - free subs. RSC, Private Mail Bag, BELLINGEN 2454. Ph: 066-552-233.

COMPREHENSIVE CATALOGUE Australian native seeds. 1800 species. Price \$6 posted. Bliss Partnership, 28 O'Connell St, TAMWORTH 2340.

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AFFILIATED DONKEY SOCIETIES OF AUSTRALIA. For info on membership, magazines and help avail write to: Mrs Pam Newton, PO Box 63, HURSTBRIDGE Vic 3099, and you will be contacted by the representative in your state.

PLACING AN AD?
See page 72 for details

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The Primal Therapy, 44 Curnow St, GOLDEN SQUARE, Vic 3555. Ph: 03-5441-3683.

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PUBLICATIONS

ALTERNATIVE PLANS 9TH EDITION Catalogue - 1997. The 9th edition of this popular catalogue is now available. The catalogue contains a comprehensive listing of books, booklets, plans & infopacs covering alternative power generation, ethyl alcohol production, wind power, gas generation, solar stills, alternative housing, low voltage workshop set-up, appliance conversion, special batteries, mini work vehicle & recreational construction plans, home-based businesses, solar panel making & powered water pumps, water purification, biological building, chemical hazards, earth energy fields & infrasound. Other titles include steam engine & methane gas generators, electric vehicle conversion plans, fuel cell construction, solar ovens & water heaters, vortex tube plans, free energy machines & magnetic engines & generators. For your catalogue, send A\$5 cash or MO to: Alternative Plans, PO Box 487, ASHGROVE Qld 4060, or, 33 Woodview St, SAMFORD Qld 4520.

'BIRTH-EMPOWERMENT OF WOMEN'. The book is written around the personal journey of the author as a midwife and mother. It discusses issues surrounding women and the birthing of their own babies. Sally R Davies, C/- PO, GUILDFORD 3451, Vic.

'GREEN CONNECTIONS', Permaculture magazine, Feb edition - 'Building Sustainable Communities', \$4. Available through Victorian newsagents and health food stores. Ph: 03-5470-5040.

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PUBLICATIONS

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HOME EDUCATION, for info send SAE to: Alternative Education Resource Group, PO Box 71, CHIRNSIDE PARK, 3116.

'NIMBIN NEWS', is a co-operatively run access magazine with articles & information from Nimbin & other areas. We cover concerns relevant to alternative lifestyles & others looking for the most sustainable way. We are one of the longest running alternative magazines and the Nimbin bioregion is at the forefront in the development of sustainable systems. As networkers we scan many mags for suitable and scarce information for our readers. Subscription: 6 editions for \$18, sample \$3.50. Back copies 5 for \$12 posted. PO Box 209, NIMBIN 2480.

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CONTACTS

NEW SOUTH WALES

MALE, 47, n/s, n/d, 6'3", slim build, Leo, quiet, sincere, easy-going, artist, author, musician, naturalist. I love visual arts, writing/illustrating books, variety of music including blues/rock, botany, entomology, time in bush doing fieldwork, thousands of books, house trained, can cook, pilot's licence. Looking for partner to find bush ac for self-suff earth-covered house/gallery. You: slim build, 30s, creative, spiritual, easy-going, enjoy learning, doing things together, especially time in the bush, interests similar to or compatible to mine, who would like free time and support to complete her own projects. View perm r/ship. Letters answered, photos returned. Jim (GR 119), C/- PO Box 242, EUROA 3666.

WOMAN, 45, lesbian, n/d, s/d, quiet, conservative, with a no-rush attitude, loves gardening, nature & honesty, seeks companion in Hunter Valley to North Sydney. Jo (GR 119), C/- PO Box 242, EUROA 3666.

PISCES MALE 39, 5'10", 11 stone, living GR lifestyle on MNC. Interests include roadbikes, music, diving, farming, reading, keeping fit, n/s, I/d. Seeking woman with similar interests, 30 to 40, no ties, photo appreciated. DC (GR 119), C/- PO Box 242, EUROA 3666.

GRUMPY OLD VIETNAM VETERAN, aged 51, bringing up 9 y/o son (his best mate) on his own, and it ain't much fun for either of us! Living in the cool, clean mtns behind Coffs Harbour, own solar-powered, wood-stoved magic cottage. Financially secure, idyllic lifestyle. Would like to meet personable, mature (in mind & spirit, if not in years) nonsmoking, fit, healthy, down-to-earth, intelligent lady, either to share the house, or to develop a lasting r/ship. A single mum with a child as company for my boy would be fine. Ring, have a yarn, no expectations! Bob, Ph: 066-572-681.

CENTRAL TABLELANDS, gent, 57, (Christian), n/s, s/d, respectable and of caring and understanding nature. Own house on acreage situated in peaceful and quiet surroundings (not isolated). Likes animals, gardening, dining out, nights at home, picnics, fishing, camping, etc. Looking to meet a nice lady (nationality open) to share my life with. For more details please write to: Terry (GR 119), C/- PO Box 242, EUROA 3666.

PLACING A CONTACT AD?

If you do not wish your address to be published, you may prefer to have replies sent C/- PO Box 242, EUROA 3666 (our address) and we'll forward them (unopened) to you. There is a nominal charge of \$5 for this service, so please add this to the amount when calculating the cost of your ad.

CHRISTIAN LADY 40, seeks nonchurch-going genuine Christian gentleman from rural area within commuting distance of ACT. Must be intelligent, honest, fun. Replies to: Judith (GR 119), C/- PO Box 242, EUROA 3666.

CANBERRA-BASED slim, attractive, independent, intelligent woman, 40s, seeks change of lifestyle. Would like to move to a safe, peaceful, rural setting in NSW, near water or mountains. Would like to share with tall, slim, romantic, together male or like-minded straight female in 40s. Must like cats and dogs, comfort, stability and stress-free environment. Jan (GR 119), C/- PO Box 242, EUROA 3666.

GENTLE, PASSIONATE, SLIM LADY seeks a loving r/ship with kind, caring man in his 40s/50s, but could be younger or older if interested. If you would like a lot of TLC reply to: B A (GR 119), C/- PO Box 242, EUROA 3666.

TASSIE? NSW? Calm, sincere, late 30s male seeks lady unafraid of above. I'm a n/s, s/d, well educated and travelled. Why am I unhappy? The time has come to be still and give back some of life's pleasures. You may be the key. Paul (GR 119), C/- PO Box 242, EUROA 3666.

If you doubt the wisdom of replying to any ad - trust your intuition

GRASSIFIEDS

CONTACTS NEW SOUTH WALES

LATIN-AMERICAN MAN, 54 (looks 44, feels 24), divorced, healthy, chivalrous, a real man, interested in books, movies, music, New Age, travel (doesn't like sports, pubs), successful but impecunious, seeks partner, forever. The woman of his dreams is 40+, sensual, nonmaterialistic, n/s, civilised. (No dependents, please.) *Joi de vivre a bonus. Star sign? VH, PO Box 505, CIVIC SQUARE, ACT 2608.*

MALE, 33, tall, easy-going, part-time dad. Enjoys outdoors, country living, travelling and has a DIY philosophy. Seeks slimish, down-to-earth lady for friendship and outings. Gordon, 'Harrowood', BUKKULLA via, INVERELL 2360.

WOMAN MUSO, 40, intelligent, nurturing, affectionate, loves dogs, close friends, quiet nights, camping, zany sense of humour, not into gay scene, goal – travel the outback live in bush. Seeks woman 40-50 with similar interests, must be emotionally honest, strong individual, looks unimportant, nonsmoker. Anne (GR 119), C/- PO Box 242, EUROA 3666.

ANSWERING A CONTACT AD?

Please put each letter in a separate stamped envelope addressed C/- GR.
We will re-address & forward it.

WANTED, ESSENTIAL: MALE, 20/30ish, tallish? intelligent, caring, able to communicate and share. Environmentally/spiritually aware, orientated towards alternative lifestyle with SOH, please no drugs or moods. I am bright, educated, attractive, slim, 24yrs, 5.5ft, with small child, have many other interests and seek warm, fulfilling, long-term r/ship with genuine guy. Please write: Adventurous Gemini (GR 119), C/- PO Box 242, EUROA 3666.

I'M A 45 YEAR OLD WOMAN, no ties (except 3 cats), seeking male companionship. Eclectic approach to most things especially food. My future view, moving to far north coast. Professional background, working class roots. Strongly support alternative philosophies. Wishing to pursue artistic/music bent. Articulate, healthy wit, a Leonine to boot. Around own age or younger preferred. Local replies welcome. Blue Mtns. Lucy, PO Box 510, HAZELBROOK 2779.

MALE, NEAR 50, slim, active, n/s, self-educated type. Outdoor worker, van dweller. Seeking female companion – long overdue. Usual GR pursuits appeal eg gardening, building. Appreciate all nature. Need to be close to mountains, rivers, streams. Enjoy exploring new places. Keen on singing and musical theatre, reading, bushwalking, etc. Healthy food important as is love/sex/romance, constructive thinking and relating. Serious face perhaps but ticklish mind. Artistic urges. Completely honest. Wherever you are write honestly, openly now to: My Kindred Spirit, C/- PO Box 233, WINGHAM 2429.

PLACING AN AD? See page 72 for details

UNIQUE WOMAN, 35 (1.67m, 56kg), with child, seeks emancipated, frank man for perm friend/r/ship. I am earthy, natural, intellectual, realistic, tolerant, honest. Dislike: chauvinists, alcoholics, hard drugs, gurus, religious men. Please reply with photo. Good spirit (GR 119), C/- PO Box 242, EUROA 3666.

WANTED: intelligent, interesting, energetic woman (50s, nonsmoker), seeks perm relationship. Positive attitudes and sense of humour essential. YR (GR 119), C/- PO Box 646, TUMUT 2720.

GENT, CHINESE, 50s, not born in Asia, divorced, nonsmoker, nondrinker, seeks sincere lady, reasonably attractive, not thin, nationality and age open. Replies guaranteed. PO Box 125, ERSKINEVILLE, NSW 2043.

CAPRICORN MALE, 29, open-minded, easy-going, caring, romantic. Seeks 25-33 y/o Scorpio lady who can relate to environmental issues, bushwalking, motorcycle rides, good food, wine, movies, sunsets, creativity and a dry sense of humour. Simon (GR 119), C/- PO Box 242, EUROA 3666.

AFFECTIONATE, UNCOMPLICATED, pretty lady, 50, slim, 5'4", healthy. Into nature, yoga, writing, the arts, self-suff. Seeks like-minded man, to 60, for harmonious r/ship and alternative lifestyle if suited. Must be n/s, fit, stable, secure, presentable, stimulating, great SOH, and at least 5'8". Write to: Shona, (GR 119), C/- PO Box 242, EUROA 3666.

I'M CALLING OUT FOR my spiritual partner! Devotional life, warmhearted giver: man/father/provider. Active achievements are proven by reality. Listen carefully – it's you? Make visionary contact, share vision. Share (GR 119), C/- PO Box 242, EUROA 3666..

GENT IN LATE FIFTIES, living alone in own home on small acreage in Hunter Valley, NSW. Divorced 15yrs, 5'8" about 11st. Folk musician with one grownup son living in London. No ties, n/s, s/d, loves animals, house proud, enjoys showing ponies and competitive horse sports. Would like to meet compatible, presentable lady to 50 with similar interests with view to companionship and lasting friendship to share my life with. A photo would be appreciated. Write to: Keith (GR 119), C/- PO Box 242, EUROA 3666.

QUEENSLAND

CENTRAL QLD WOMAN, 48, enjoys camping, music, prana yoga, meditation, quality conversation. Wishes to meet caring male similar age and interests. All letters answered. Let's share a dream. CQ (GR 119), C/- PO Box 242, EUROA 3666.

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MAN, 43, seeks amateur CLASSICAL MUSICIAN, view to marriage and family. Ph: 07-3398-3461.

FIFTY-SIX YEAR OLD, bi-guy wants companion, outback lifestyle. Ian Ph: 079-461-407.

MAN, SIXTIES, fit, virile, excel health, vegetarian, no smoke, no drink, natural healer. Ladies 48 to 58, Bill Ward, Unit 2/41 Payne St, CABOOLTJURE 4510.

SEVENTH DAY SABBATH KEEPERS, mature lady and teenage son interested in natural healing, self-suff skills & organic gardening. Seeking contact with families & other singles for support and encouragement. Please write to: Pen Friends, PO Box 144, GIN GIN 4671.

COOLOOLA/SUNSHINE COAST, attractive, caring, intelligent, creative, spiritual woman, 36 y/o, seeks man with similar qualities who is also strong, gentle, preferably tall & financially secure. If you are sensitive, centred & living at a deeper level, I'd love to hear from you. Photo appreciated, reply: TAO (GR 119), C/- PO Box 242, EUROA 3666.

GENUINE SINGLE MALE, young 46, nice acreage lifestyle, seeks single female under 40, slim, and adventurous enough to invest 45c in reply. Exchange details, photo (will return). Who knows, maybe find love plus romantic lifestyle. If not, what loss? Harry (GR 119), C/- PO Box 242, EUROA 3666.

VICTORIA

FEMALE, 39, 155cm/50kg, German background, nonsmoker, nonreligious, humanist, PhD student. Interests incl classical music, reading, SBS/ABCTV, bushwalking, swimming, healthy living. Looking for a genuine, sensitive and educated male with similar interests for a common future. NE (GR 119), C/- PO Box 242, EUROA 3666.

I AM MOTHER EARTH and she is dying. I have a daughter, a real live human being baby to bring up into this world. Please help me. Write: PO Box 807, HEATHMONT 3135.

SOUTH AUSTRALIA

MALE, FORTIES, slim, quiet, no ties, naturist lifestyle, beachside, bush setting, shared, into nature, painting, music, reading, peaceful walks, n/s, n/d, n/drugs, n/pets. Seeks female friendship, penfriend seeking similar. CK (GR 119), C/- PO Box 242, EUROA 3666.

OTHER

NORTH NSW? TASSIE? YARRA VALLEY? Wherever you are, write to me please. Positive, happy, fun, spiritual, well-travelled, committed, 30s woman seeks same in a man. Relocating. PO Box 293, DUNSBOROUGH 6281.

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